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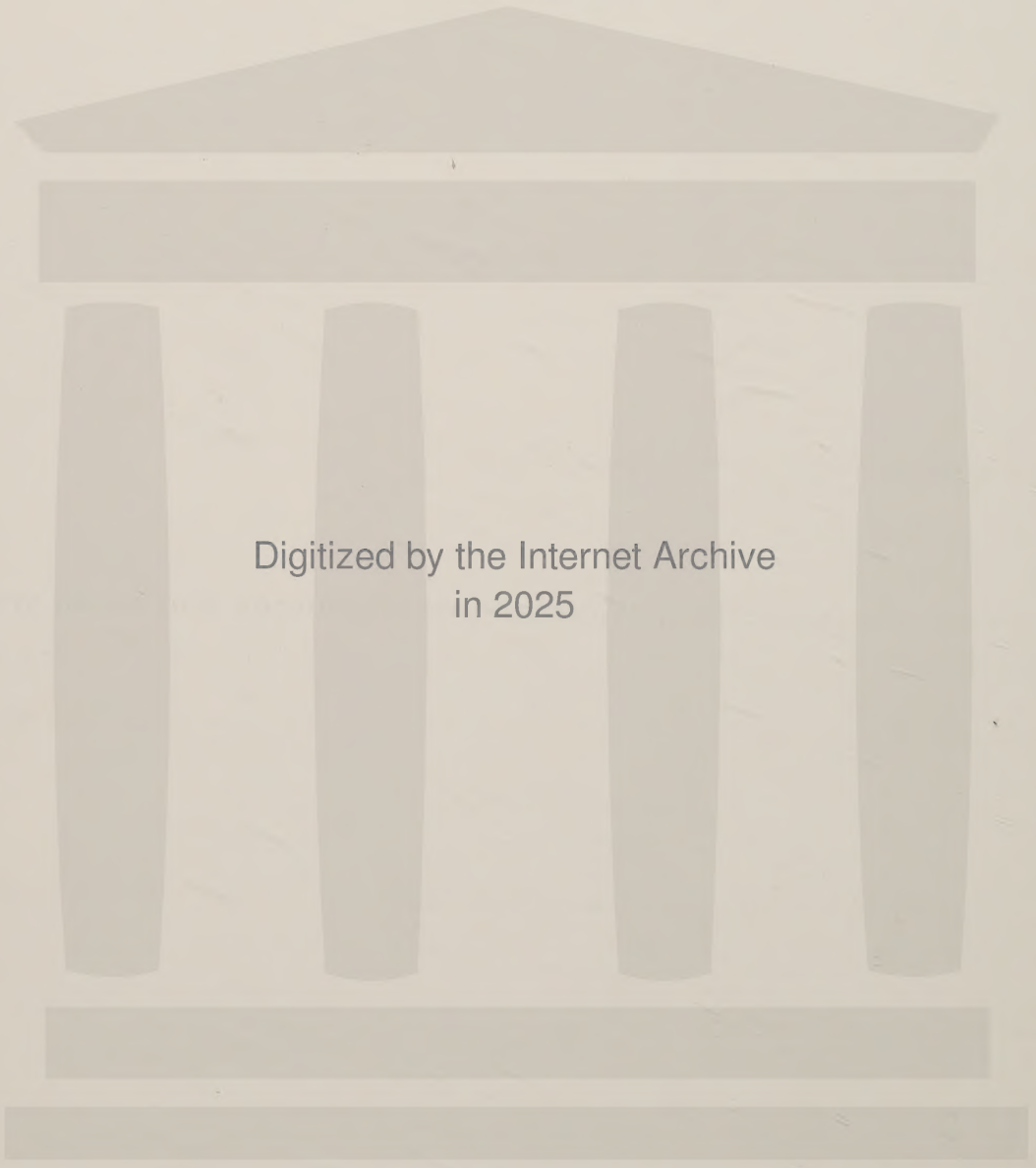

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In brief

Fiftieth edition of HSQ

This is the 50th edition of HSQ, which first appeared in Spring1999.

HSQ 1, which can be found here with all the other issues, contained five articles plus an annual statistical update and various reference tables. Although the appearance of HSQ has changed over time – the biggest step since 1999 being the move to electronic-only publishing at the beginning of 2010 – the subjects covered are broadly similar.

The lead article was 'Socio-economic differentials in health: illustrations from the Office for National Statistics Longitudinal Study'. The longitudinal survey (LS) is still a key source for the study of health inequalities, although there have been major advances in methodology in recent years. Another article, 'Death certification and the epidemiologist', is a classic educational piece for users of mortality data and still well worth reading.

Adult Dental Health Survey 2009

The 2009 Adult Dental Health Survey (ADHS) is the fifth in a series of national dental surveys that have been carried out approximately every 10 years since 1968. The main purpose of these surveys has been to get a picture of the dental health of the adult population and how this has changed over time. A First Release of statistics from the survey was published by the NHS Information Centre for Health and Social Care in December 2010 and the main findings were released on the 25 March 2011.

The results of the survey show that across almost all of the indicators of oral health and disease there has been a continued improvement in adults' dental health. For example;

- 94 per cent of the combined populations of England, Wales and Northern Ireland were dentate, that is had at least one natural tooth
- the proportion of adults in England who were edentate (no natural teeth) has fallen by 22 percentage points from 28 per cent in 1978 to 6 per cent in 2009
- just under a third of dentate adults (31 per cent) in England, Wales and Northern Ireland had obvious tooth decay in either the crowns or roots of their teeth. For those adults who had some decay, the average number of teeth affected was 2.7, compared with an average of 0.8 among all dentate adults

- the prevalence of decay (using the natural tooth crowns as the measure) in England has fallen from 46 per cent to 28 per cent since 1998, and this reduction is reflected in all age groups

- 84 per cent of dentate adults in England, Wales and Northern Ireland had at least one filled tooth, and for those with a filling the mean number of teeth affected was 7.2 with an average of 2.1 surfaces affected per restored tooth

In addition, the survey also demonstrated that the majority of dentate adults in England, Wales and Northern Ireland are engaging in good oral health behaviours. For example;

- 75 per cent of adults said that they cleaned their teeth at least twice a day and a further 23 per cent of adults said that they cleaned their teeth once a day. Only 2 per cent of adults said that they cleaned their teeth less than once a day and 1 per cent said that they never cleaned their teeth

- over three-quarters of dentate adults (77 per cent) indicated that they were attending the dentist at least once every two-years, the maximum recommended recall interval

The results showed that 92 per cent of adults who tried to get an NHS dental appointment in the three years prior to being interviewed successfully made and attended an appointment. However:

- 1 per cent of adults received an appointment but did not attend

- 7 per cent of adults were unable to get an NHS dental appointment

Adult Dental Health Survey 2009 - Summary report and thematic series | The NHS Information Centre

Review of infant mortality statistics

ONS is conducting a review of all infant mortality outputs to ensure that published outputs continue to meet user requirements. Changes are proposed to both the timing and content of infant mortality outputs. Some outputs may be discontinued to avoid any duplication of published data and reduce costs. If you are a user of infant mortality statistics and are interested in being involved in the review please send your details to:

Email: CIM@ons.gsi.gov.uk or contact Julie Messer on 01633 456021 or mailto:julie.messer

Video Podcasts

ONS has begun to develop a series of video podcasts to summarise key statistics for a general audience. In the field of health, a podcast relating to Official Cancer Statistics in England has recently been released and more are planned to appear over the coming year. ONS video podcasts can be viewed on the ONS YouTube Channel at: www.youtube.com/user/onsstats

For further detail on health-related content contact Mike Smith on 01633 455925 or mailto:michael.p.smith

Jamie Jenkins on 01633 455840 or mailto:jamie.jenkins is the contact for ONS podcasts in general

New and improved ONS website to launch 28 August 2011

The Office for National Statistics (ONS) is developing a new website, which will deliver the following improvements:

- quicker and easier to find information, including better search and navigation
- easier to use information, by downloading data, charts and graphs
- improved accessibility to ONS content for users with sight or other impairments
- prompt release of outputs at 9.30am sharp

The new website will be launched on 28 August, postponed from the original date of 30 April.

Content will be transferred from the current website to the new one, but some existing bookmarks and links will no longer work. Bookmarks can be recreated once the new website has gone live.

After the initial launch, there will be further developments to the new website. These include:

- an online data explorer tool, allowing users to customise, interact with and download datasets
- an Application Programming Interface, enabling re-use of ONS data by others

Find out more at: Web Development: Office for National Statistics

Social inequalities in alcohol-related adult mortality by National Statistics Socio-economic Classification, England and Wales, 2001–03

Veronique Siegler, Alaa Al-Hamad, Brian Johnson, Claudia Wells *Office for National Statistics* and Nick Sheron *Southampton University*

Abstract

Background

This article is the first analysis of the social inequalities in adult alcohol-related mortality in England and Wales at the start of the 21st century, using the National Statistics Socio-economic Classification (NS-SEC). It presents the socio-economic patterns of alcohol-related mortality by gender, age and region, for England and Wales as a whole, Wales and the regions of England.

Methods

Death registrations provided the number of deaths for working age adults, using the National Statistics definition of alcohol-related mortality. Population estimates for England and Wales in 2001–03 were used to estimate alcohol-related mortality rates by sex, five-year age group, NS-SEC and region. Inequalities were measured using ratios of alcohol-related mortality rates between the least and most advantaged classes.

Results

There were substantial socio-economic variations in adult alcohol-related mortality, with the inequalities being greater for women than for men. The mortality rate of men in the Routine class was 3.5 times those of men in Higher and Managerial occupations, while for women the corresponding figure was 5.7 times. Greater socio-economic inequalities in mortality were observed for men aged 25–49 than for men aged 50–64; however the highest mortality rate of men occurred for Routine workers aged 50–54. Women in the Routine class experienced mortality rates markedly higher than other classes. The highest mortality rate of women also occurred for Routine workers, but at a younger age than for men (45–49). Within England, the North-West showed the largest inequalities, with particularly high rates in the Routine class for both sexes. In general, there was no association between levels of mortality and socio-economic gradients in mortality across the English regions and Wales.

Conclusions

Rates of alcohol-related mortality in England and Wales increased significantly for people between the early 1990s and early 21st century, and were substantially greater for those in more disadvantaged socio-economic classes. There is also evidence that these socio-economic differences were greater at younger ages, especially for men at ages 25–49.

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Introduction

Excessive consumption of alcohol is a major preventable cause of premature mortality, disability and injury. Rates of alcohol-related mortality in the United Kingdom (UK) have increased significantly since the early 1990s. The number of alcohol-related deaths in England and Wales doubled between 1991 and 2008, rising from 3,415 (6.4 per 100,000 population) in 1991 to 7,344 (12.4 per 100,000) in 2008 (Office for National Statistics (ONS), 2011). Eighty-five per cent of alcohol-related deaths in this period were attributed to chronic liver diseases and 65 per cent of deaths occurred in men. The most recent data indicated that there were 7,099 alcohol-related deaths in England and Wales in 2009 (11.8 per 100,000), representing a 3.3 per cent drop in deaths compared to 2008 (ONS, 2011).

In England and Wales, socio-economic class and deprivation have been identified as risk factors for alcohol-related mortality and large geographic variations have also been observed (Breakwell *et al.*, 2007; Harrison and Gardiner, 1999).

This article describes patterns of social inequalities in alcohol-related mortality for men and women of working age, in England and Wales using the National Statistics Socio-economic Classification (NS-SEC). The study was restricted to the period 2001 to 2003 as a consequence of constraints on

the availability of population data suitably classified by NS-SEC. The article also reports on age and geographic variations in inequalities in alcohol-related mortality for both men and women.

Background

The high impact of alcohol misuse on ill-health, intentional and non-intentional injuries, and mortality in England and Wales has long been reported in the literature (WHO, 2011; Sheron *et al.*, 2011; House of Commons Health Committee, 2010; Baker and Rooney, 2003). Binge drinking and long-term heavy drinking are both known to be associated with harm to physical and psychological health, and can also be a cause of harm to others through road traffic accidents, violence and crime (House of Commons Health Committee, 2010) . The Department of Health estimated that 7 per cent of all hospital admissions are alcohol-related, costing the NHS £2.7 billion a year (Department of Health, 2010).

Drinking patterns in the UK have changed in the second half of the 20th century, both in terms of the volume of alcohol consumed and the demographic profile of those drinking. The average consumption of alcohol per head in the UK increased from three-and-a-half litres of pure alcohol per head in 1947 to nine-and-a-half litres in 2004/05 and fell to 8.9 litres in 2008 (BBPA and HM Revenue and Customs, 2009). General Lifestyle Survey (GLF) data for 2009 suggested that 7 per cent of men in Great Britain were drinking at levels defined by the Department of Health as 'higher risk' (more than 50 units per week) and a further 19 per cent were drinking at levels defined as 'increasing risk' (between 21 and 50 units per week) (GLF, 2009).

The biggest demographic changes in drinking patterns in recent years have been the increases among women and young people. The GLF, formerly known as the General Household Survey (GHS) recorded a marked rise in overall weekly alcohol consumption among women between 1988 and 2002, in particular among young women aged 16–24. In 1988, 15 per cent of women in this age group were drinking more than 14 units per week, whereas in 2002 it was 33 per cent. However, there was a fall in the proportion of women aged 16–24 drinking more than 14 units per week to 19 per cent in 2006. A new methodology of converting volumes of alcoholic drinks to units of alcohol was introduced in 2006. The figures using this new methodology indicated that 24 per cent of women aged 16–24 were exceeding 14 units per week in 2006 and 23 per cent in 2009.

The mean alcohol consumption by children aged 11–15 in England who had drunk alcohol in the preceding week doubled between 1990 and 2006, according to a survey by the NHS Health and Social Care Information Centre (2010). The new methodology of converting volumes of alcoholic drinks to units of alcohol showed that the mean alcohol consumption of children aged 11–15 in England who had drunk alcohol in the week preceding the survey was 12.7 units in 2007, increased to 14.6 units in 2008 and reduced to 11.6 units in 2009.

Thus, while evidence on the most recent trends is equivocal, there is no question that alcohol consumption in England and Wales has increased substantially over the last twenty years for both sexes and all ages.

Social class, occupation and deprivation have been identified as factors associated with alcohol-related mortality in several studies (Erskine *et al.*, 2010; Breakwell *et al.*, 2007; Romeri *et al.*, 2007; Harrison and Gardiner, 1999; Makela *et al.*, 1997). Makela *et al.* (1997) found that alcohol-related

mortality in Finland was almost three times higher for men and twice as high for women when comparing manual workers with senior non-manual employees. The work of Harrison and Gardiner (1999) highlighted higher mortality rates for men in manual classes compared with professional social classes in Great Britain in 1988–94, with a greater difference at younger ages.

ONS reported on alcohol-related mortality by occupation in England and Wales between 2001 and 2005 (Romeri *et al.*, 2007). It was shown that the occupational groups with the lowest alcohol-related mortality were Managers, Senior Officials and Professionals. Erskine *et al.* (2010) provided further evidence of association between alcohol-related mortality and socio-economic deprivation in England and Wales between 1999 and 2003, with the greatest inequalities observed among people aged 25–44 years.

The Marmot Review (2010) mentioned an association between alcohol-related hospital admissions and high levels of deprivation for both men and women, with particularly high rates of admission for those areas among the most deprived quintile of England and Wales. Binge drinking was also reported to be most common among those living in deprived areas.

This article aims to contribute to the debate on socio-economic inequalities in alcohol-related deaths by assessing the patterns of age-specific mortality rates for men and women of working age and by examining the gender and regional socio-economic variations in age-standardised mortality rates. The analysis of these rates is presented for the first time by the National Statistics Socio-economic Classification (NS-SEC) whereas previous socio-economic alcohol-related mortality analysis used the Registrar General's Social Class (RGSC). The analysis will cover England and Wales as a whole and it will also investigate variations in socio-economic inequalities across Wales and the regions of England. England as a whole on the other hand will not be covered by this analysis due to the close proximity of its results to those of England and Wales. However data on rates for England can be found in separate web tables on the ONS website.
www.statistics.gov.uk/hsq/downloads/hsq50art1.xls

Methods

In this section the measure of socio-economic class used along with the definitions of the alcohol-related deaths and regions are described in more detail. The data sources used in the analysis and the outcome measures adopted in this article are also described.

The National Statistics Socio-economic Classification (NS-SEC)

The National Statistics Socio-economic Classification (NS-SEC) was developed with the aim of replacing both the Registrar General's Social Class (RGSC) and the Socio-economic Groups (SEG) in official statistics, due to its improved conceptual and theoretical basis (Rose and Pevalin *et al.*, 2003). The conceptual basis for the NS-SEC is the structure of employment relations operating in modern developed economies. Occupations are differentiated in terms of reward mechanisms, promotion prospects, autonomy and job security. The most advantaged NS-SEC classes (Higher managerial and professional) typically exhibit personalised reward structures, have good opportunities for advancement, relatively high levels of autonomy within the job, and are relatively secure. These attributes tend to be reversed for the most disadvantaged class (Routine).

The operational categories of the NS-SEC can be derived by three principal methods, full, reduced or simplified depending on the data available. The full NS-SEC requires occupational information coded to the Standard Occupational Classification 2000 (SOC 2000), details of employment status and the size of the organisation. The reduced NS-SEC requires only the SOC 2000 occupational classification and details of employment status (Simplified NS-SEC requires occupation only). For the purpose of this article, since the size of the organisation is not collected at death registration, the reduced method was used to derive NS-SEC.

For analysis purposes NS-SEC is nested so that the operational categories can offer maximum flexibility in terms of the different collapses possible (Rose and Pevalin, 2003). Box 1 presents the eight-class version of the NS-SEC that was used in this analysis.

For the purpose of this article, those who had never worked, the long-term unemployed, full-time students, those with an occupation inadequately described or unclassified for other reasons are referred to as the 'non-occupied group' and are excluded from the analysis, being composed of a disparate range of people.

Definition of alcohol-related mortality

The National Statistics definition of alcohol-related deaths based on the International Classification of Diseases, Tenth Revision (ICD10) was used (ONS, 2006). It includes only those causes regarded as being most directly due to alcohol consumption (Box 2). It does not include other diseases where alcohol has been shown to have some causal relationship, such as cancers of the mouth, oesophagus and liver. The definition includes all deaths from chronic liver disease and cirrhosis (excluding biliary cirrhosis), even when alcohol is not specifically mentioned on the death certificate. Apart from deaths due to poisoning with alcohol (accidental, intentional or undetermined), this definition excludes any other external causes of death, such as road traffic and other accidents. The definition allows for consistent comparisons over time for those deaths most clearly associated with alcohol consumption.

Box 1 National Statistics Socio-economic Classification Analytic classes

Analytic classes			
Eight class version			Examples of occupations include:
1	Higher managerial and professional occupations	1.1 Large employers and higher managerial	Senior officials in national and local government; directors and chief executives of major organisations; officers in the armed forces
		1.2 Higher professional	Civil engineers, medical practitioners, physicists, geologists, IT strategy and planning professionals, legal professionals, architects
2		Lower managerial and professional	Teachers in primary and secondary schools, quantity surveyors, public service administrative professionals, social workers, nurses, IT technicians
3		Intermediate	NCOs and other ranks in the Armed Forces, graphic designers, medical and dental technicians, local government clerical officers, counter clerks
4		Small employers and own account workers	Hairdressing and beauty salon proprietors, shopkeepers, dispensing opticians in private practice, farmers, self-employed taxi drivers
5		Lower supervisory and technical	Bakers and flour confectioners, screen-printers, plumbers, electricians and motor mechanics employed by others, gardeners, rail transport operatives
6		Semi-routine	Pest control officers, clothing cutters, traffic wardens, scaffolders, assemblers of vehicles, farm workers, veterinary nurses and assistants, shelf fillers
7		Routine	Hairdressing employees, floral arrangers, sewing machinists, van, bus and coach drivers, labourers, hotel porters, bar staff, cleaners and domestics, road sweepers, car park attendants
Non-occupied			Never worked, Long-term unemployed, Full time students, Occupation inadequately described and Unclassified for other reasons

Box 2 The National Statistics definition of alcohol-related deaths using the International Classification of Diseases, Tenth Revision (ICD–10)

ICD–10 Code	Description
F10	Mental and behavioural disorders due to use of alcohol
G31.2	Degeneration of nervous system due to alcohol
G62.1	Alcoholic polyneuropathy
I42.6	Alcoholic cardiomyopathy
K29.2	Alcoholic gastritis
K70	Alcoholic liver disease
K73	Chronic hepatitis, not elsewhere classified
K74	Fibrosis and cirrhosis of liver (Excluding K74.3-K74.5; Biliary cirrhosis)
K86.0	Alcoholic induced chronic pancreatitis
X45	Accidental poisoning and exposure to alcohol
X65	Intentional self-poisoning by and exposure to alcohol
Y15	Poisoning by and exposure to alcohol, intent undetermined

Data sources for analysis

Mortality data

Death registration records were used to count deaths with an underlying cause that were alcohol-related for working age adults, men aged 25–64 and women aged 25–59, registered in England and Wales in the calendar years 2001 to 2003. These deaths were identified using the International Classification of Diseases, 10th Revision (ICD–10) codes given in Box 2. Information collected at death registration also includes occupational details for both men and women. However, while for men there is good recording of occupational details at death that allows clear allocation of an NS-SEC occupied class, for women this is often not the case. There is a substantial degree of under-reporting of the occupations of women at death which makes it much more difficult to assign them to an NS-SEC occupied class (Langford and Johnson, 2009).

Therefore for women in this analysis, it was thought to be most appropriate to use a 'combined' classification whereby a non-married woman is assigned an NS-SEC class on the basis of her own occupation and employment status and a married women is assigned the most advantaged NS-SEC class of either herself or her husband.

The 'combined' classification has been used previously in an analysis describing social inequalities in adult women mortality (Langford and Johnson, 2009; Erikson, 1984). This combined classification method is not used for men (due to the fact that wives' occupations were rarely recorded).

In the current analysis an adjustment was applied to the mortality data of men and women, to correct for the misallocation of deaths between NS-SEC classes 2 and 3. This misallocation occurred because some death registration entries for technical workers did not record that the individual concerned had a supervisory role. A further adjustment was applied to female mortality data only. This was to correct for the under-recording of the occupation of women at death. For more detail on the process of adjustment for men see White *et al.*, (2007) and for women see Langford and Johnson, (2009).

Population data

The population of men and women used in this analysis were based on the adjusted population estimates for England and Wales 2001–03, presented in previous articles on mortality by NS-SEC (Langford and Johnson, 2009; White *et al.*, 2007). For the regional population estimates of men and women in each age group and NS-SEC class, the percentage distributions across Wales and the regions of England were calculated from the 2001 Census data for men and women respectively, as presented in previous articles by Siegler *et al.*, 2008 and Langford *et al.*, 2009. Tables 1 and 2 present the population of men and women of working age in 2001–03, used in this analysis. Breakdown of these populations by five-year age group can be found in separate tables published on the ONS website at: www.statistics.gov.uk/hsq/downloads/hsq50art1.xls

Table 1 Optimised population estimates (person years at risk) by NS-SEC classification and by region, men aged 25–64, 2001–03

NS-SEC analytic classes	England and Wales	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales
1 Higher managerial and professional	7,077,427	224,478	763,618	532,789	520,728	631,976	822,386	1,231,049	1,440,310	636,201	273,893
1.1 Large employers and higher managerial	3,176,735	99,248	341,644	251,394	256,874	310,860	384,813	469,235	670,931	279,373	112,363
1.2 Higher professional	3,900,692	125,230	421,974	281,395	263,854	321,116	437,573	761,814	769,379	356,828	161,530
2 Lower managerial and professional	9,212,030	369,126	1,050,287	771,128	690,722	816,892	1,046,971	1,504,966	1,632,975	892,132	436,831
3 Intermediate	2,438,268	117,072	314,897	210,893	170,158	209,400	256,245	420,647	399,767	222,538	116,650
4 Small employers and own account workers	5,784,013	193,463	681,529	514,106	453,379	549,436	681,752	764,763	971,297	657,134	317,155
5 Lower supervisory and technical	5,660,218	323,010	779,204	596,767	513,919	621,863	585,381	540,472	807,444	548,852	343,307
6 Semi-routine	4,443,052	242,137	611,121	471,645	400,855	577,733	426,404	525,956	533,146	400,704	253,350
7 Routine	5,964,793	364,070	836,442	704,988	588,909	699,542	580,227	557,190	722,040	545,248	366,137
Total	40,579,801	1,833,355	5,037,099	3,802,316	3,338,670	4,106,841	4,399,367	5,545,042	6,506,978	3,902,808	2,107,324

Source: ONS

Table 2 **Optimised population estimates (person years at risk) by NS-SEC classification and by region, women aged 25–59, 2001–03**

NS-SEC analytic classes	England and Wales	North East	North West	Yorshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales
1 Higher managerial and professional	6,390,536	212,315	696,723	491,871	476,081	565,399	739,198	1,084,037	1,297,885	572,671	254,355
1.1 Large employers and higher managerial	3,193,104	103,045	345,913	250,131	254,146	300,555	381,798	488,042	678,768	277,013	113,692
1.2 Higher professional	3,197,432	109,270	350,810	241,740	221,935	264,844	357,400	595,995	619,117	295,658	140,663
2 Lower managerial and professional	11,308,881	484,781	1,360,823	983,221	857,396	1,041,418	1,233,903	1,777,193	1,893,508	1,095,812	580,825
3 Intermediate	5,458,575	263,048	711,937	493,906	412,682	519,860	588,004	852,497	855,800	494,247	266,595
4 Small employers and own account workers	2,960,311	107,402	354,323	277,865	243,003	286,417	334,022	363,046	474,175	348,205	171,852
5 Lower supervisory and technical	2,890,943	171,857	388,966	317,292	277,102	325,265	290,747	263,382	386,434	282,575	187,324
6 Semi-routine	5,054,560	292,973	704,470	553,885	440,377	581,220	491,031	570,531	632,093	479,507	308,475
7 Routine	2,660,774	177,734	384,295	322,654	280,186	313,087	232,702	263,002	291,970	224,289	170,855
Total	36,724,580	1,710,110	4,601,536	3,440,693	2,986,828	3,632,666	3,909,608	5,173,687	5,831,865	3,497,305	1,940,281

Source: ONS

Outcome measures

To compare the alcohol-related mortality by NS-SEC analytic classes, for adults of working age, two measures of mortality rates were used. Firstly, age-specific mortality rates by NS-SEC and five-year age groups were calculated for men aged 25–64 and women aged 25–59 in England and Wales, 2001–03. Secondly, mortality rates for men aged 25–64 and women aged 25–59, standardised to the European Standard Population, were calculated for England and Wales as a whole, and by the English regions and Wales, for the period 2001–03. Age-standardised rates are a summary measure allowing populations with differing age structure to be reliably compared.

The ratios of the above mortality rates of the least advantaged to the most advantaged NS-SEC class were also calculated. These ratios are referred to in the article as socio-economic gradients. Confidence intervals were used to assess the significance of these mortality rate ratios between the least and most advantaged classes.

Results

The total numbers of alcohol related deaths for men and women attributed to specific causes is shown in Table 3. There were 8,938 alcohol-related deaths to men aged 25–64 and 3,613 to women aged 25–59 in England and Wales, during 2001–03. Alcoholic liver disease represented about two-thirds of the alcohol-related deaths for both men and women. Approximately 18 per cent of alcohol-related deaths were assigned to fibrosis and cirrhosis of the liver for both men and women.

The numbers of alcohol-related deaths by NS-SEC classification and by region are presented in Tables 4 and 5, along with the numbers and percentages of deaths classified to occupied NS-SEC classes.

Table 3 Number of deaths attributed to specific alcohol-related causes, men aged 25–64 and women aged 25–59, England and Wales, 2001–03

ICD 10 CODE	Description	Number of deaths (Men)	Percent of alcohol-related deaths attributed to specific alcohol-related causes (Men)	Number of deaths (Women)	Percent of alcohol-related deaths attributed to specific alcohol-related causes (Women)
K70	Alcoholic liver disease	5,939	66.4	2,472	68.4
K74	Fibrosis and cirrhosis of liver (Excluding K74.3-K74.5: Biliary cirrhosis)	1,582	17.7	658	18.2
F10	Mental and behavioural disorders due to use of alcohol	841	9.4	295	8.2
X45, X65 and Y15	Accidental poisoning and exposure to alcohol, Intentional self-poisoning by and exposure to alcohol and Poisoning by and exposure to alcohol, intent undetermined	265	3	96	2.7
I42.6	Alcoholic cardiomyopathy	221	2.5	37	1
K86.0	Alcoholic induced chronic pancreatitis	60	0.7	23	0.6
G31.2	Degeneration of nervous system due to alcohol	15	0.2	3	0.1
K73	Chronic hepatitis, not elsewhere classified	12	0.1	25	0.7
K29.2	Alcoholic gastritis	3	0.03	4	0.1
G62.1	Alcoholic polyneuropathy	0	0	0	0
	Total	8,938	100	3,613	100

Source: ONS

Table 4 Adjusted number of alcohol-related deaths by NS-SEC classification and by region, men aged 25–64, 2001–03

NS-SEC analytic classes	England and Wales[1]	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales
1 Higher managerial and professional	603	22	96	42	43	88	56	85	90	49	23
1.1 Large employers and higher managerial	207	8	34	18	16	36	23	20	25	18	5
1.2 Higher professional	396	14	62	24	27	52	33	65	65	31	18
2 Lower managerial and professional	1,282	73	189	102	90	143	101	177	198	135	71
3 Intermediate	347	25	60	21	22	29	28	59	55	24	24
4 Small employers and own account workers	1,122	36	168	80	73	122	93	192	182	109	55
5 Lower supervisory and technical	1,115	84	209	110	79	142	75	114	142	83	71
6 Semi-routine	1,250	60	255	116	90	169	88	165	145	88	69
7 Routine	1,875	128	369	220	124	277	108	182	205	126	133
Non-occupied[2]	1,344	71	234	97	85	126	75	323	163	81	82
Total	8,938	499	1,580	788	606	1,096	624	1,297	1,180	695	528
Number of deaths classified to occupied NS-SEC classes	7,594	428	1,346	691	521	970	549	974	1,017	614	446
Percent of deaths classified to occupied NS-SEC classes	85	86	85	88	86	89	88	75	86	88	84

1 Figures for England & Wales as a whole but not Wales and regions of England include deaths of non-residents
2 The 'Non-occupied' category includes 'Never worked, long-term unemployed, full-time students, inadequately described and unclassified for other reasons'

Source: ONS

Table 5 Adjusted number of alcohol-related deaths by NS-SEC and by region, women aged 25–59, 2001–03

NS-SEC analytic classes	England and Wales[1]	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales
1 Higher managerial and professional	239	15	41	15	18	20	31	24	36	23	13
1.1 Large employers and higher managerial	124	8	20	7	11	16	13	12	15	13	7
1.2 Higher professional	116	6	21	7	6	5	17	12	21	11	6
2 Lower managerial and professional	709	54	120	65	50	65	52	83	117	61	40
3 Intermediate	427	37	75	40	30	46	36	57	56	22	27
4 Small employers and own account workers	289	15	59	18	21	34	19	35	37	24	23
5 Lower supervisory and technical	376	31	74	37	31	48	19	33	44	39	19
6 Semi-routine	668	38	149	59	44	83	40	78	72	57	44
7 Routine	578	37	134	55	44	76	38	56	51	39	44
Non-occupied[2]	327	26	65	25	25	33	21	51	37	23	20
Total	3613	253	717	314	263	406	256	416	450	288	230
Number of deaths classified to occupied NS-SEC classes	3,286	227	652	289	238	373	235	365	413	265	210
Percent of deaths classified to occupied NS-SEC classes	91	90	91	92	91	92	92	88	92	92	91

1 Figures for England & Wales as a whole but not Wales and regions of England include deaths of non-residents
2 The 'Non-occupied' category includes 'Never worked, long-term unemployed, full-time students, inadequately described and unclassified for other reasons'

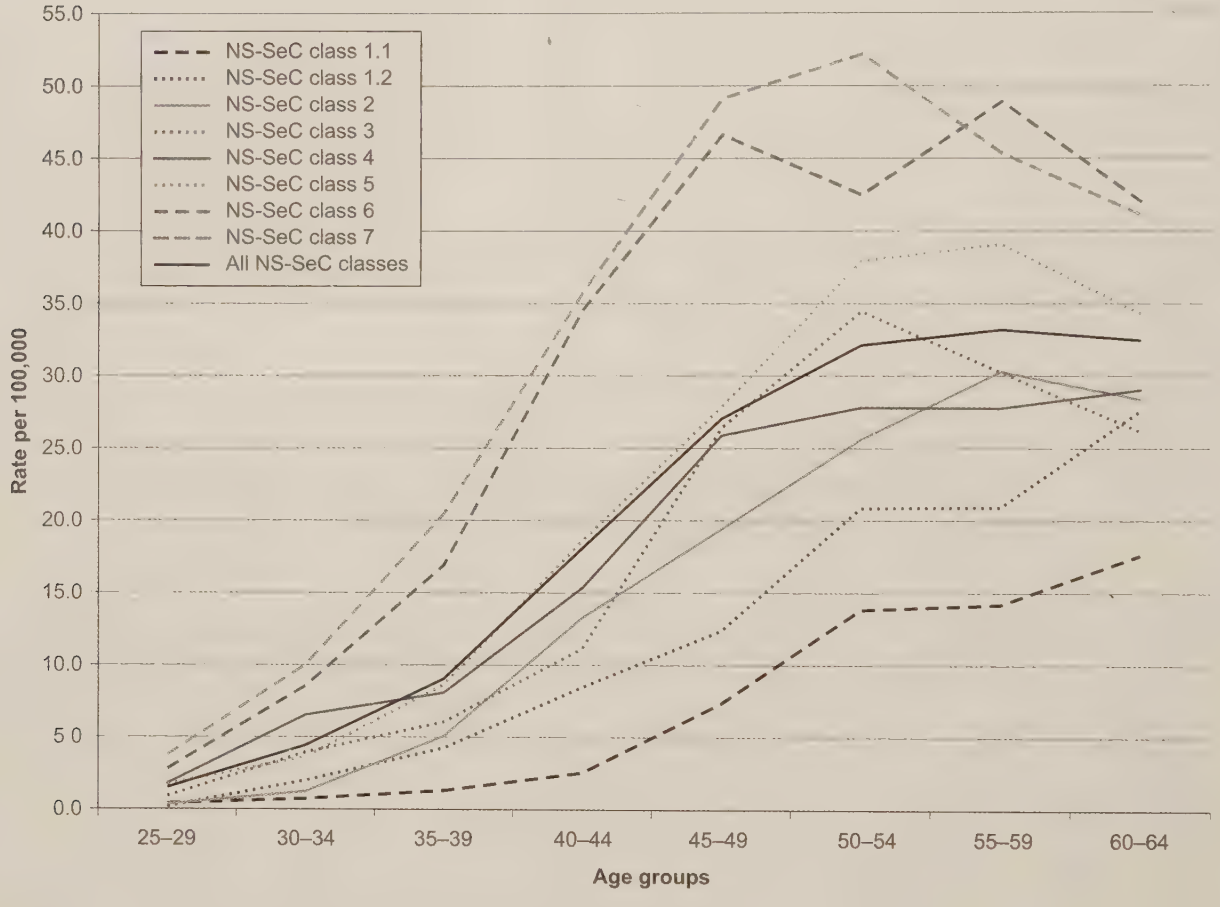
Source: ONS

England and Wales: Age-specific and age-standardised mortality rates by NS-SEC

Age-specific mortality rates by NS-SEC

The age-specific mortality rates per 100,000 by five-year age group and by NS-SEC are presented in Table 6 (men) and Table 7 (women), and illustrated in Figure 1 (men) and on Figure 2 (women).

Figure 1 **Age-specific mortality rates from alcohol-related causes of death by five-year age group and NS-SEC, men aged 25–64, England and Wales, 2001–03**



Source: ONS

Table 6

Age-specific mortality rates[1,2,3] by five year age group and NS-SEC classification, men aged 25–64, England and Wales, 2001–03

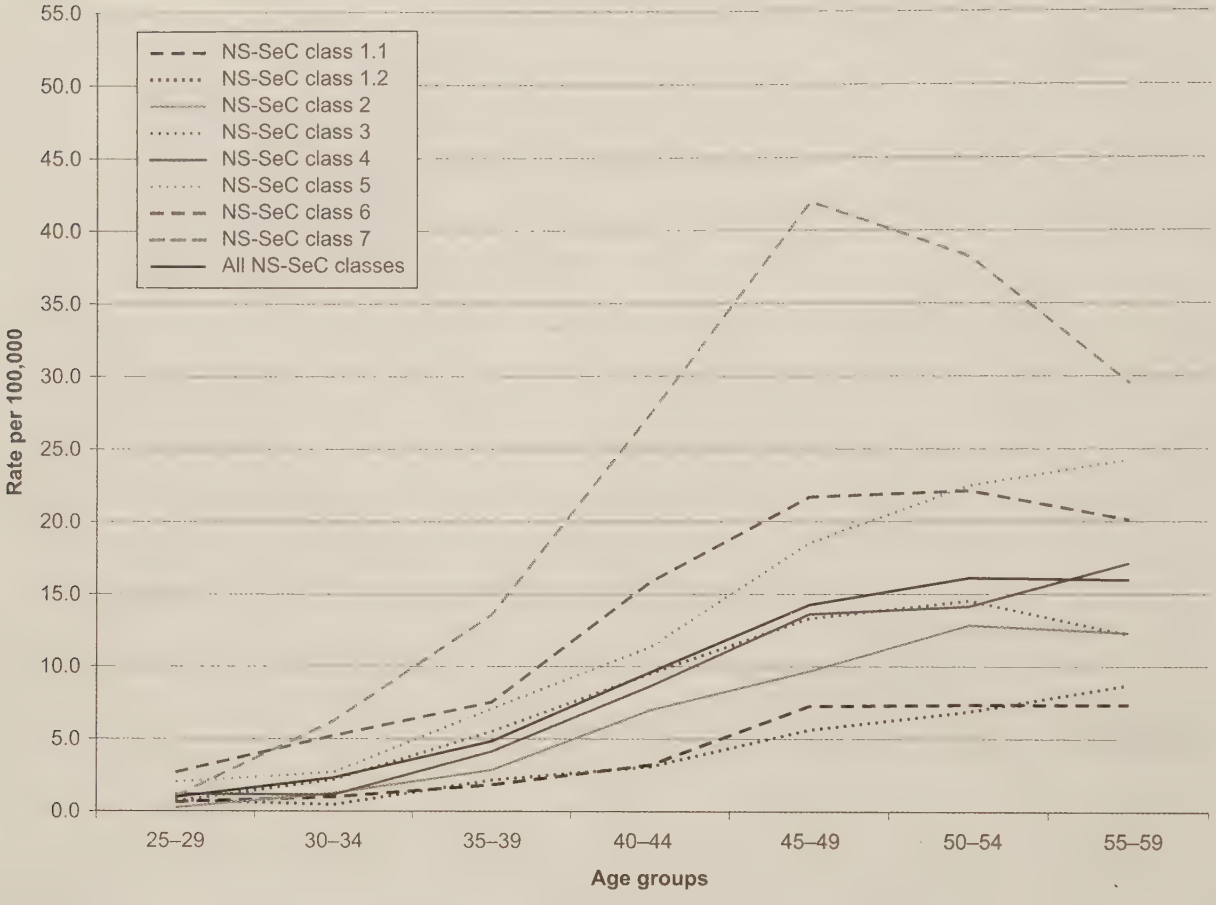
Rate per 100,000

NS-SEC analytic classes	Age (years)								
	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	25–64
1 Higher managerial and professional	(:)	*1.5* *(0.9,2.5)*	2.8 (2.0,4.0)	5.5 (4.2,7.1)	9.8 (8.0,12.1)	17.4 (14.9,20.4)	17.7 (15.0,20.9)	23.5 (19.6,28.1)	8.5 (7.9,9.2)
1.1 Large employers and higher managerial	(:)	*0.7* *(0.2,2.3)*	*1.3* *(0.6,2.7)*	*2.6* *(1.5,4.4)*	7.4 (5.3,10.3)	13.8 (10.7,17.9)	14.2 (10.8,18.6)	17.6 (12.8,24.3)	6.5 (5.7,7.5)
1.2 Higher professional	(:)	*2.0* *(1.2,3.4)*	4.3 (2.9,6.3)	8.5 (6.3,11.5)	12.4 (9.5,16.1)	20.9 (17.0,25.6)	20.9 (16.9,25.9)	27.6 (22.2,34.3)	10.2 (9.2,11.2)
2 Lower managerial & professional	*0.3* *(0.1,0.9)*	*1.2* *(0.8,2.0)*	5.1 (4.0,6.4)	13.3 (11.4,15.4)	19.4 (17.0,22.2)	25.6 (22.9,28.7)	30.3 (27.1,33.9)	28.4 (24.7,32.5)	13.9 (13.2,14.7)
3 Intermediate	*0.9* *(0.3,2.4)*	*3.9* *(2.5,6.3)*	6.1 (4.0,9.3)	11.1 (7.9,15.7)	26.4 (20.8,33.6)	34.4 (28.0,42.4)	30.2 (23.9,38.3)	26.1 (19.6,34.9)	14.2 (12.8,15.8)
4 Small employers & own account workers	*1.8* *(0.8,4.0)*	6.5 (4.7,9.0)	8.1 (6.4,10.3)	15.3 (12.9,18.2)	25.9 (22.6,29.7)	27.8 (24.5,31.5)	27.8 (24.5,31.5)	29.0 (25.3,33.4)	19.4 (18.3,20.6)
5 Lower supervisory and technical	*1.7* *(1.0,3.1)*	3.6 (2.6,5.1)	8.6 (6.9,10.8)	18.6 (15.8,21.9)	27.9 (24.1,32.2)	37.9 (33.5,43.0)	39.1 (34.4,44.4)	34.3 (29.6,39.6)	19.7 (18.6,20 9)
6 Semi-routine	*2.8* *(1.8,4.4)*	8.6 (6.6,11.1)	16.9 (14.0,20.4)	34.5 (30.1,39.7)	46.6 (41.0,53.0)	42.5 (37.2,48.6)	48.9 (43.1,55.5)	42.0 (36.3,48.6)	28.1 (26.6,29.7)
7 Routine	3.8 (2.6,5.5)	10.0 (8.1,12.4)	20.4 (17.6,23.7)	35.7 (31.7,40.3)	49.1 (44.1,54.7)	52.2 (47.2,57.7)	45.3 (40.8,50.5)	41.1 (36.5,46.2)	31.4 (30.0,32.9)
All classes	1.5 (1.2,1.9)	4.4 (3.9,5.0)	9.0 (8.3,9.8)	18.1 (17.0,19.3)	27.1 (25.6,28.6)	32.1 (30.6,33.7)	33.2 (31.6,34.9)	32.5 (30.7,34.3)	18.7 (18.3,19.1)
Ratio 7:1	15.5 (3.7,65.0)	6.6 (3.9,11.3)	7.2 (4.9,10.5)	6.5 (4.9,8.7)	5.0 (4.0,6.3)	3.0 (2.5,3.6)	2.6 (2.1,3.1)	1.8 (1.4,2.2)	3.7 (3.4,4.0)

1 95 per cent confidence intervals shown in parenthesis
2 Rates were not calculated where there were fewer than 3 deaths in a cell, denoted by (:)
3. Rates calculated from fewer than 20 deaths are shown in italics

Source: ONS

Figure 2 **Age-specific mortality rates from alcohol-related causes of death by five-year age group and NS-SEC, women aged 25–59, England and Wales, 2001–03**



Source: ONS

Table 7 Age-specific mortality rates[1,2,3] by five year age group and NS-SEC classification, women aged 25–59, England and Wales, 2001–03

Rate per 100,000

NS-SEC analytic classes	Age (years)							
	25–29	30–34	35–39	40–44	45–49	50–54	55–59	25–59
1 Higher managerial and professional	*0.7* *(0.3,1.7)*	*0.7* *(0.4,1.5)*	2.0 (1.3,3.0)	3.2 (2.2,4.4)	6.5 (5.0,8.4)	7.1 (5.5,9.2)	8.1 (6.2,10.6)	3.7 (3.3,4.3)
1.1 Large employers and higher managerial	(:)	*1.0* *(0.4,2.3)*	*1.8* *(1.0,3.3)*	*3.2* *(2.0,5.1)*	7.3 (5.2,10.2)	7.4 (5.2,10.5)	7.4 (4.9,11.1)	3.9 (3.2,4.6)
1.2 Higher professional	*0.7* *(0.2,2.2)*	(:)	*2.2* *(1.2,3.8)*	*3.1* *(1.9,5.1)*	5.6 (3.8,8.4)	6.9 (4.8,10.0)	8.7 (6.1,12.5)	3.6 (3.0,4.3)
2 Lower managerial & professional	*0.2* *(0.1,0.7)*	1.2 (0.8,1.9)	2.8 (2.2,3.7)	7.0 (5.8,8.4)	9.7 (8.2,11.3)	12.8 (11.2,14.8)	12.3 (10.6,14.4)	6.3 (5.8,6.8)
3 Intermediate	*0.7* *(0.3,1.5)*	2.2 (1.4,3.4)	5.5 (4.2,7.3)	9.5 (7.6,12.0)	13.3 (10.8,16.4)	14.5 (12.0,17.6)	12.2 (9.9,15.1)	7.8 (7.1,8.6)
4 Small employers & own account workers	(:)	*1.1* *(0.4,3.0)*	4.1 (2.6,6.5)	8.6 (6.4,11.8)	13.6 (10.6,17.5)	14.2 (11.3,17.8)	17.1 (13.9,21.1)	9.8 (8.7,11.0)
5 Lower supervisory and technical	*2.0* *(0.9,4.4)*	*2.7* *(1.5,4.9)*	7.1 (5.0,10.0)	11.3 (8.6,15.0)	18.5 (14.7,23.3)	22.5 (18.4,27.4)	24.2 (20.0,29.3)	13.0 (11.8,14.4)
6 Semi-routine	*2.7* *(1.7,4.2)*	5.2 (3.9,7.1)	7.5 (5.9,9.7)	15.8 (13.2,19.0)	21.7 (18.3,25.7)	22.1 (18.9,26.0)	20.1 (17.1,23.6)	13.2 (12.2,14.3)
7 Routine	*1.0* *(0.4,2.8)*	6.2 (4.3,9.1)	13.6 (10.5,17.6)	27.4 (22.6,33.4)	42.0 (35.4,49.7)	38.2 (32.3,45.2)	29.5 (24.6,35.3)	21.7 (20.0,23.6)
All classes	1.0 (0.7,1.3)	2.3 (2.0,2.8)	4.9 (4.3,5.4)	9.6 (8.8,10.5)	14.3 (13.2,15.4)	16.1 (15.1,17.3)	16.0 (14.9,17.2)	8.9 (8.6,9.3)
Ratio 7:1	1.5 (0.4,5.7)	8.7 (3.9,19.4)	6.8 (4.2,11.1)	8.7 (5.9,12.9)	6.5 (4.8,8.8)	5.4 (3.9,7.3)	3.6 (2.6,5.0)	5.8 (5.0,6.7)

1 95 per cent confidence intervals shown in parenthesis
2 Rates were not calculated where there were fewer than 3 deaths in a cell, denoted by (:)
3 Rates calculated from fewer than 20 deaths are shown in italics

Source: ONS

Age-specific mortality rates by NS-SEC – Men

Men in Semi-routine (Class 6) and Routine (Class 7) occupations had markedly higher death rates from alcohol than men in other classes in each of the age groups studied, especially at younger ages. Routine workers aged 30–44 were about seven times more likely to die from alcohol-related causes than men of the same age in Higher managerial and professional occupations (Class 1). A higher mortality rate for Higher managers and professionals (Class 1) combined with a lower one for Routine occupations (Class 7) at ages 60–64 resulted in reduced inequalities in that age group compared to younger ages (Figure 1). The highest age-specific alcohol-related mortality rate in this study (52.2 per 100,000) was observed for men in Routine occupations (Class 7) aged 50–54.

For men in Intermediate occupations (Class 3) and Routine workers (Class 7), the alcohol-related mortality rates peaked at ages 50–54. For Lower managers and professionals (Class 2), Lower supervisory, technical workers (Class 5) and men in Semi-routine occupations (Class 6), the highest mortality rate from alcohol occurred at age 55–59.

Alcohol-related mortality rates for Small employers and own account workers (Class 4) also increased until ages 45–49, but levelled out at older ages.

The age-specific mortality rates of the two sub-groups of the Higher managerial and professional occupations (Class 1) differed, with Large employers and higher managers (Class 1.1) having a lower mortality rate from alcohol than Higher professionals (Class 1.2) at most ages. For both sub-groups, the mortality rate from alcohol-related causes increased continuously between ages 25 and 64, with a plateau in mortality between the ages of 50 and 59, but an increase at ages 60–64. However, Large employers and higher managers (Class 1.1) aged 55–64 had a lower alcohol-related mortality than Routine class workers (Class 7) who were 20 years their junior.

Age-specific mortality rates by NS-SEC – Women

At ages 35–59, the mortality rates of women in Routine occupations (Class 7) were much higher than in any other classes. The mortality rates for women in Routine occupations (Class 7) were lower than for women in Semi-routine occupations (Class 6) at ages 25–29 and similar at ages 30–34. Women in Routine occupations aged 30–44 were between 7 and 9 times more likely to die from alcohol-related causes than women in Higher managerial and professional occupations. (Class 1). The difference reduced to around four times at ages 55–59.

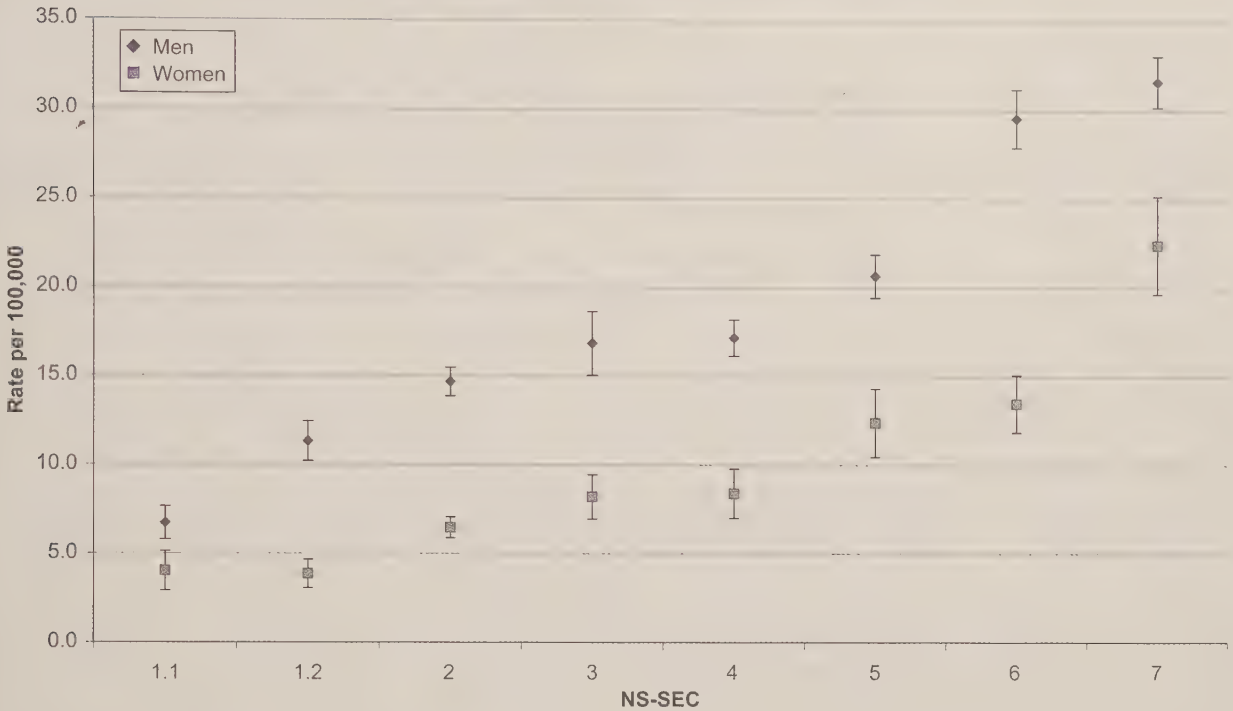
The highest mortality rate of all classes and age groups for women (42.0 per 100,000) occurred for Routine workers (Class 7) aged 45–49, (Figure 2). This compares with the highest age-specific rate for men, which was observed at age 50–54, as reported above.

The gap in mortality between Lower supervisory and technical workers (Class 5) and Semi-routine workers (Class 6) was narrower for women than for men. At ages 35–39, 50–54, and 55–59 women in these classes experienced similar mortality rates.

Age-standardised mortality rates by NS-SEC

The age-standardised mortality rates per 100,000 men aged 25–64, by NS-SEC class are presented in Table 8 and Figure 3. The corresponding rates for women aged 25–59 are found in Table 9 and Figure 3. The socio-economic gradients or ratios of mortality rates of men (or women) in Routine occupations (Class 7) to that of men (or women) in Higher managerial and professional occupations (Class 1) are also presented in Tables 8 and 9.

Figure 3 **Age-standardised mortality rates[1] from alcohol-related causes of death by NS-SEC, men aged 25–64 and women aged 25–59, England and Wales, 2001–03**



1 Directly age-standardised rates using the European standard population

Source: ONS

Table 8 Age-standardised mortality rates[1,2,3,4] from alcohol-related causes of death, by NS-SEC classification and region, men aged 25–64, England and Wales, 2001–03

Rate per 100,000

NS-SEC analytic classes	Regions of England and Wales										
	England and Wales	North East	North West	Yorshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales
1 Higher managerial and professional	9.1	9.7	13.0	7.9	8.3	13.7	7.0	10.2	6.7	7.6	8.1
	(8.4,9.9)	(5.7,13.8)	(10.4,15.6)	(5.5,10.3)	(5.8,10.9)	(10.8,16.6)	(5.1,8.8)	(7.9,12.4)	(5.3,8.1)	(5.4,9.7)	(4.8,11.4)
1.1 Large employers and higher managerial	6.7	(:)	9.7	*6.8*	*6.0*	10.8	5.9	6.4	4.0	*6.3*	(:)
	(5.8,7.7)		(6.4,13.0)	*(3.6,10.0)*	*(3.0,8.9)*	(7.2,14.3)	(3.4,8.3)	(3.5,9.3)	(2.4,5.6)	*(3.4,9.3)*	
1.2 Higher professional	11.3	*11.5*	15.9	8.9	10.6	17.0	8.1	12.7	9.1	8.7	*11.1*
	(10.2,12.5)	*(5.5,17.6)*	(12.0,19.9)	(5.3,12.5)	(6.6,14.6)	(12.3,21.6)	(5.3,10.9)	(9.5,15.9)	(6.9,11.4)	(5.6,11.7)	*(6.0,16.3)*
2 Lower managerial & professional	14.7	19.9	18.6	13.5	13.2	17.9	9.8	16.0	12.3	15.0	16.1
	(13.9,15.5)	(15.3,24.5)	(15.9,21.2)	(10.9,16.2)	(10.5,15.9)	(14.9,20.8)	(7.9,11.7)	(13.6,18.4)	(10.6,14.0)	(12.5,17.5)	(12.3,19.8)
3 Intermediate	16.8	25.3	22.7	11.5	14.6	15.7	12.9	19.4	15.8	11.9	23.7
	(15.1,18.6)	(15.1,35.5)	(16.9,28.4)	(6.5,16.4)	(8.4,20.7)	(9.9,21.4)	(8.2,17.7)	(14.4,24.5)	(11.6,20.0)	(7.1,16.7)	(14.2,33.3)
4 Small employers & own account workers	17.2	16.8	21.4	14.4	14.5	19.7	12.0	24.1	16.5	13.5	15.2
	(16.1,18.2)	(11.3,22.3)	(18.2,24.7)	(11.1,17.7)	(11.0,17.9)	(16.1,23.2)	(9.6,14.5)	(20.7,27.6)	(14.0,18.9)	(10.9,16.0)	(11.1,19.3)
5 Lower supervisory and technical	20.7	27.2	27.8	19.4	15.9	23.3	13.4	24.4	18.5	16.1	21.5
	(19.4,21.9)	(21.4,33.1)	(24.0,31.6)	(15.7,23.0)	(12.3,19.4)	(19.4,27.1)	(10.4,16.5)	(19.8,28.9)	(15.5,21.6)	(12.7,19.6)	(16.5,26.5)
6 Semi-routine	29.6	26.5	43.9	26.2	23.3	30.3	20.8	35.5	27.9	22.9	29.3
	(27.9,31.2)	(19.7,33.2)	(38.5,49.3)	(21.4,31.0)	(18.5,28.1)	(25.7,34.9)	(16.4,25.2)	(30.1,41.0)	(23.3,32.5)	(18.1,27.7)	(22.4,36.2)
7 Routine	31.6	35.1	45.1	31.7	20.8	40.0	18.9	34.2	28.3	22.4	36.8
	(30.2,33.1)	(29.0,41.2)	(40.5,49.8)	(27.5,35.9)	(17.1,24.5)	(35.2,44.7)	(15.3,22.5)	(29.2,39.2)	(24.3,32.2)	(18.5,26.4)	(30.5,43.0)
All classes	19.0	23.7	26.9	18.3	15.5	23.6	12.4	21.3	15.5	15.2	21.0
	(18.6,19.4)	(21.4,25.9)	(25.5,28.3)	(17.0,19.7)	(14.1,16.8)	22.1,25.1)	(11.3,13.4)	(20.0,22.7)	(14.5,16.5)	(14.0,16.4)	(19.0,22.9)
Ratio 7:1	3.5	3.6	3.5	4.0	2.5	2.9	2.7	3.4	4.2	3.0	4.5
	(3.2,3.8)	(2.5,5.3)	(2.8,4.3)	(3.0,5.4)	(1.8,3.4)	(2.3,3.6)	(2.0,3.6)	(2.6,4.3)	(3.4,5.3)	(2.2,4.0)	(3.1,6.6)

1 Directly age-standardised rates using the European standard population
2 95% confidence intervals shown in parenthesis
3 Rates were not calculated where there were fewer than 10 deaths in a cell, denoted by (:)
4 Rates calculated from fewer than 20 deaths are shown in italics

Source: ONS

Table 9 Age-standardised mortality rates[1,2,3,4] from alcohol-related causes of death, by NS-SEC classification and region, women aged 25–59, England and Wales, 2001–03

Rate per 100,000

NS-SEC analytic classes	Regions of England and Wales										
	England and Wales	North East	North West	Yorshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales
1 Higher managerial and professional	4.0 (3.3,4.6)	*7.1 (3.6,10.5)*	6.0 (4.1,7.8)	*3.0 (1.5,4.4)*	*3.9 (2.1,5.6)*	3.5 (2.0,5.0)	4.3 (2.8,5.8)	3.2 (1.9,4.5)	2.9 (1.9,3.8)	4.0 (2.4,4.0)	*5.2 (2.5,7.8)*
1.1 Large employers and higher managerial	4.0 (2.9,5.1)	(:)	5.6 (3.0,8.3)	(:)	*4.4 (2.0,6.9)*	*5.1 (2.6,7.5)*	*3.7 (1.7,5.6)*	*3.6 (1.5,5.6)*	*2.2 (1.1,3.3)*	*4.3 (2.0,6.6)*	(:)
1.2 Higher professional	3.9 (3.1,4.7)	(:)	6.2 (3.5,8.9)	(:)	(:)	(:)	*5.1 (2.7,7.5)*	*2.9 (1.2,4.6)*	3.5 (2.0,5.0)	*3.5 (1.4,5.6)*	(:)
2 Lower managerial & professional	6.5 (5.9,7.1)	11.1 (8.3,13.8)	9.0 (7.4,10.6)	6.6 (5.1,8.1)	5.9 (4.3,7.4)	6.4 (4.9,7.9)	4.2 (3.1,5.2)	5.7 (4.5,6.9)	6.2 (5.1,7.2)	5.5 (4.1,6.8)	6.8 (4.8,8.8)
3 Intermediate	8.2 (6.9,9.5)	15.0 (10.1,19.8)	11.2 (8.4,14.0)	8.3 (5.7,10.9)	7.6 (4.9,10.2)	9.5 (6.7,12.3)	6.2 (4.2,8.2)	7.7 (5.6,9.8)	6.6 (4.5,8.7)	4.3 (2.6,6.1)	10.6 (6.7,14.4)
4 Small employers & own account workers	*8.4 (7.0,9.8)*	*12.6 (6.7,18.5)*	14.2 (10.4,18.0)	*5.8 (3.3,8.3)*	7.7 (4.6,10.9)	10.1 (6.8,13.5)	4.7 (2.7,6.7)	9.4 (6.3,12.5)	6.6 (4.8,8.3)	5.2 (3.1,7.2)	10.3 (6.2,14.3)
5 Lower supervisory and technical	12.4 (10.5,14.3)	16.5 (11.0,22.0)	17.7 (13.4,22.0)	10.9 (7.6,14.3)	10.2 (6.8,13.6)	14.0 (10.1,17.8)	6.3 (3.7,8.8)	12.9 (8.5,17.3)	10.9 (7.8,14.1)	13.2 (9.2,17.2)	*9.5 (5.6,13.5)*
6 Semi-routine	13.5 (11.8,15.1)	13.3 (9.5,17.2)	21.8 (18.1,25.5)	10.9 (8.3,13.6)	9.8 (7.1,12.5)	14.7 (11.6,17.8)	8.2 (5.8,10.5)	14.8 (11.5,18.0)	11.5 (8.9,14.0)	11.9 (9.0,14.9)	14.2 (10.3,18.1)
7 Routine	22.4 (19.7,25.2)	21.2 (14.8,27.6)	35.3 (29.1,41.6)	17.7 (13.2,22.3)	15.3 (11.0,19.6)	25.3 (19.7,30.9)	16.7 (11.7,21.7)	23.4 (17.3,29.5)	18.8 (13.8,23.9)	17.7 (12.5,23.0)	25.9 (18.6,33.2)
All classes	9.0 (8.7,9.4)	13.2 (11.5,14.9)	14.1 (13.0,15.2)	8.4 (7.4,9.3)	7.8 (6.8,8.8)	10.3 (9.2,11.3)	5.9 (5.1,6.6)	8.3 (7.4,9.2)	7.0 (6.3,7.7)	7.2 (6.4,8.1)	10.5 (9.1,11.9)
Ratio 7:1	5.7 (4.7,6.9)	3.0 (1.9,4.8)	5.9 (4.3,8.2)	6.0 (3.8,9.4)	4.0 (2.5,6.2)	7.2 (4.8,10.8)	3.8 (2.6,5.7)	7.4 (4.9,11.2)	6.6 (4.5,9.5)	4.5 (2.9,6.8)	5.0 (3.1,8.1)

1 Directly age-standardised rates using the European standard population
2 95% confidence intervals shown in parenthesis
3 Rates were not calculated where there were fewer than 10 deaths in a cell, denoted by (:)
4 Rates calculated from fewer than 20 deaths are shown in italics

Source: ONS

Age-standardised mortality rates by NS-SEC – Men

A large socio-economic gradient in mortality rates was found between men in Higher managerial and professional occupations (Class 1) and men in Routine occupations (Class 7), with the latter 3.5 times as likely to die from alcohol-related causes as the former in the period examined (Table 8). The highest alcohol-related mortality rate of all classes occurred for Routine workers, at 31.6 per 100,000.

Men in each of the three Routine and Manual classes (Classes 5, 6 and 7) had statistically significantly higher rates of alcohol-related mortality than all men in England and Wales. Mortality rates of Routine workers (Class 7) were approximately 64 per cent higher than those of all men in England and Wales. By contrast, men assigned to each of the Managerial and professional classes (Classes 1.1, 1.2 and 2) as well as Small employers and own account workers (Class 4) had statistically significantly lower rates of alcohol-related mortality than all men in England and Wales. Higher managers and professionals (Class 1) had a mortality rate approximately half that of all men in England and Wales.

There was a marked statistical difference in alcohol-related mortality between the two subgroups of the Higher managerial and professional occupations (Classes 1.1 and 1.2), and between the Lower supervisory and technical class (Class 5) and the Semi-routine class (Class 6), as illustrated in Figure 3. Men in Intermediate occupations (NS-SEC class 3) had similar mortality rates to those of Small employers and own account workers (NS-SEC class 4), at around 17 per 100,000. This was a result of the mortality rates for men in Intermediate occupations being lower than those of Small employers and own account workers at younger ages and higher at older ages (see Figure 1).

Age-standardised mortality rates by NS-SEC – Women

The mortality rates from alcohol-related causes were consistently lower for women than men across the NS-SEC analytic classes, as seen in Figure 3. The mortality rate of women in Routine occupations was the highest of all classes, at 22.4 per 100,000, and was similar to that of men in the Lower supervisory and technical class (Class 5).

The socio-economic inequalities in alcohol-related mortality for women were greater than those seen for men, with women in the Routine class having a rate of alcohol-related mortality about six times greater than women in Higher managerial and professional occupations (Table 9).

Unlike for men, the mortality rates experienced by women in Lower supervisory and technical class (Class 5) were similar to those for women in the Semi-routine class (Class 6). Women in Routine occupations (Class 7) had a significantly raised mortality from alcohol-related causes compared to women in Semi-routine occupations (Class 6). Also, there were no statistically significant differences between the mortality of women in Higher and lower managerial and professional occupations (Classes 1.1 and 1.2).

Wales, England and the regions of England: age-standardised mortality rates by NS-SEC

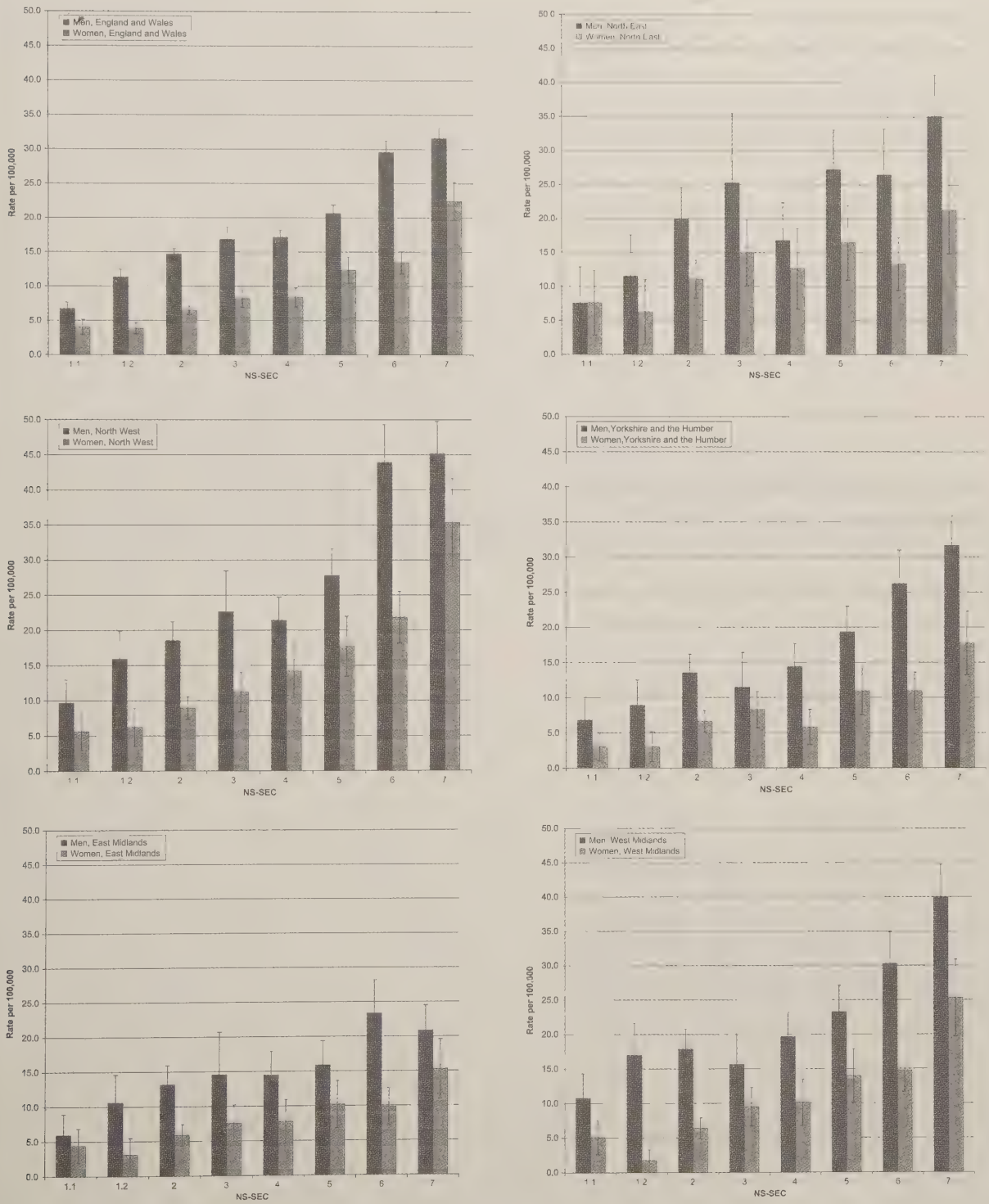
The age-standardised alcohol-related mortality rates for men aged 25–64 and for women aged 25–59 by NS-SEC class for England and Wales, the regions of England, and Wales are shown in Tables 8 and 9 and illustrated in Figure 4.

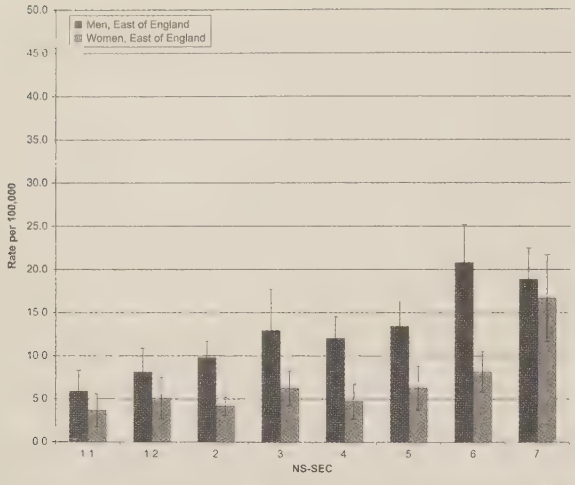
The socio-economic gradients or ratios of mortality rates of men (or women) in Routine occupations (Class 7) to that of men (or women) in Higher managerial and professional occupations (Class 1), are also presented in Tables 8 and 9 and illustrated individually in Figures 5 and 6.

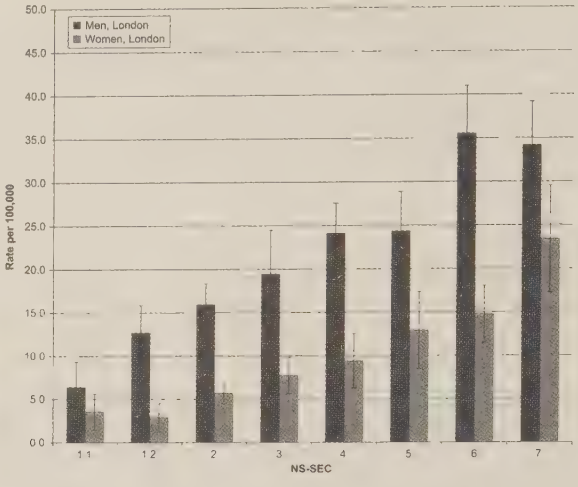
Results for England on the other hand will not be covered by this analysis due to the close proximity to the England and Wales results; however data on rates for England can be found in supplementary tables published on the ONS website at:
www.statistics.gov.uk/hsq/downloads/hsq50art1.xls

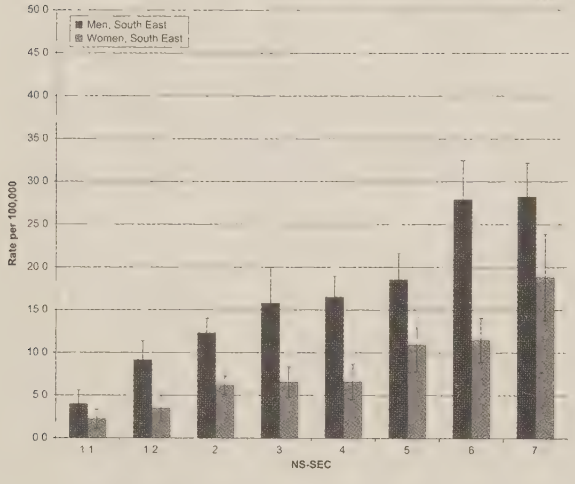
Figure 4

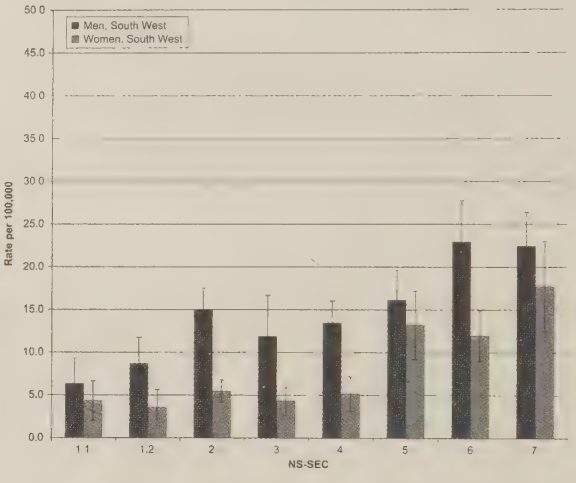
Age-standardised mortality rates[1] from alcohol-related causes of death by NS-SEC, men aged 25–64 and women aged 25–59, England and Wales, the regions of England and Wales, 2001–03

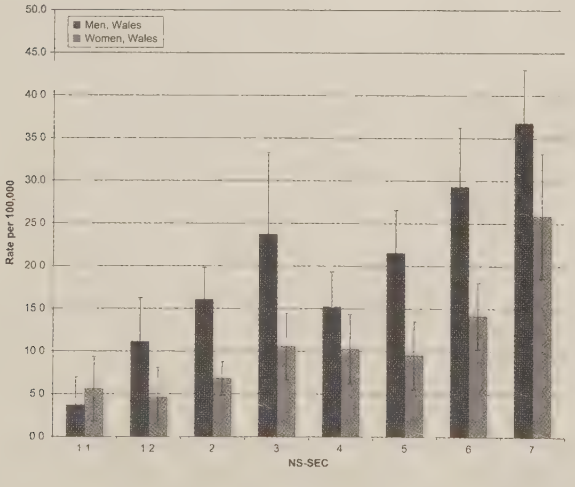








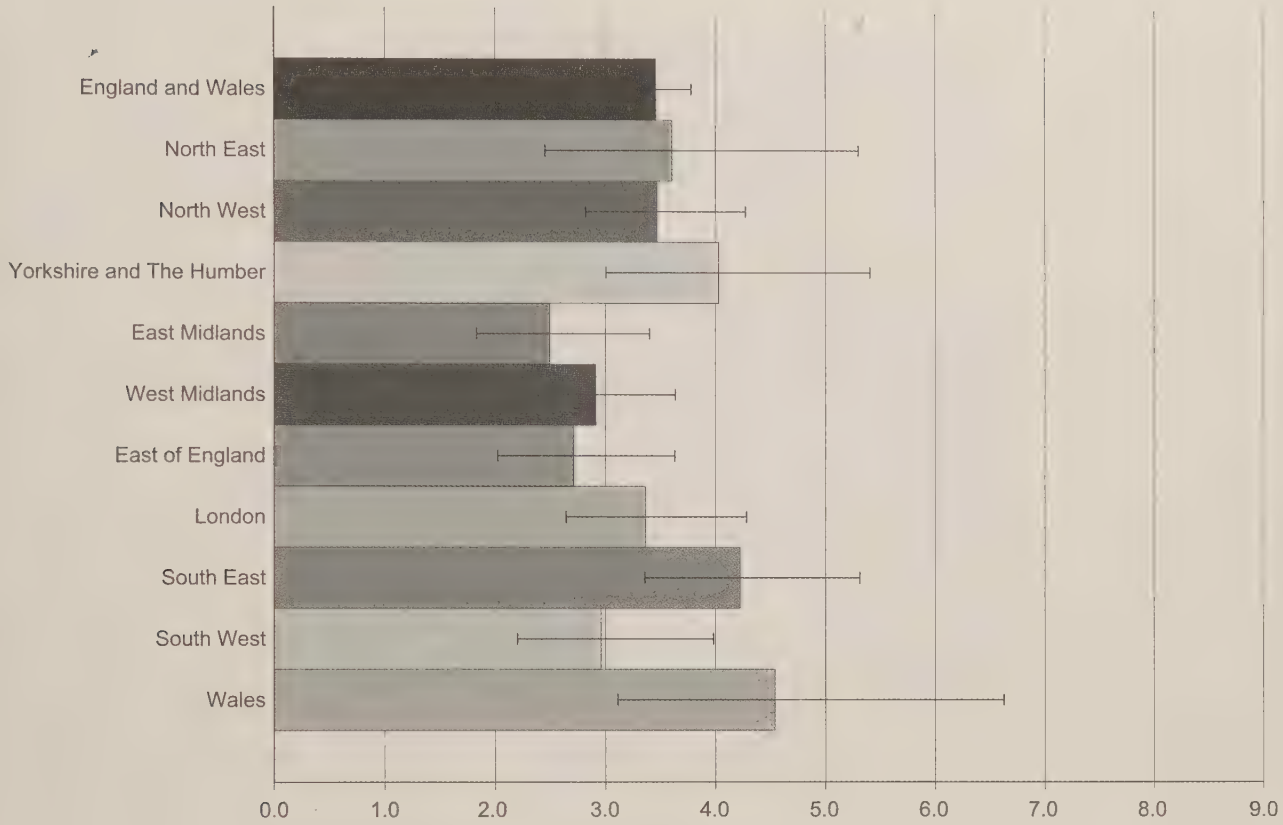




1 Directly age-standardised rates using the European standard population

Source: ONS

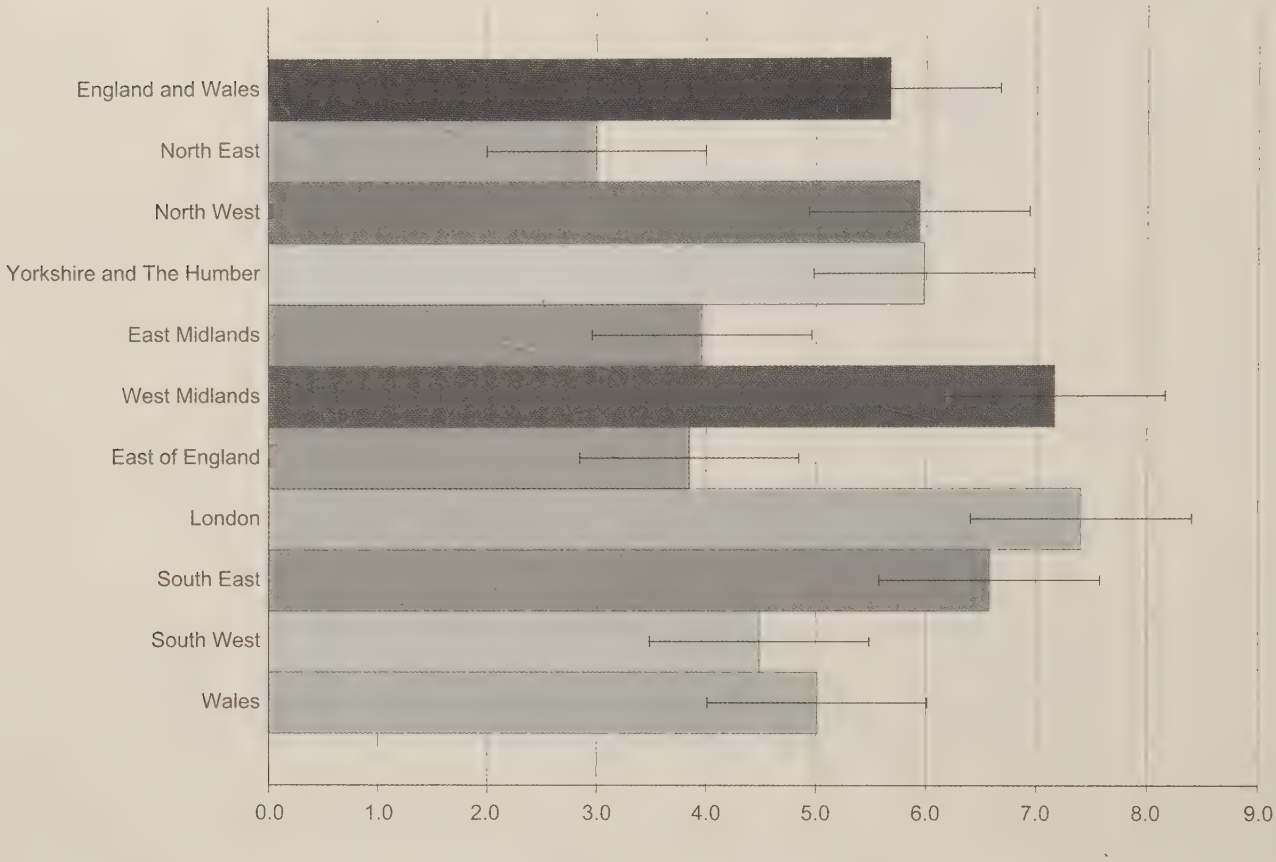
Figure 5 **Socio-economic gradients[1] in mortality for alcohol-related causes of death, for men aged 25–64, in England and Wales, the regions of England and Wales, 2001–03**



1 Ratio of the mortality rate of men in NS-SEC class 7 to the mortality rate of men in NS-SEC class 1

Source: ONS

Figure 6 **Socio-economic gradients[1] in mortality for alcohol-related causes of death, for women aged 25–59, in England and Wales, the regions of England and Wales, 2001–03**



1 Ratio of the mortality rate of women in NS-SEC class 7 to the mortality rate of women in NS-SEC class 1

Source: ONS

Age-standardised mortality rates by NS-SEC – Men

The highest mortality rate for all occupied classes was observed in the North West (26.9 per 100,000), followed by the North East (23.7 per 100,000), the West Midlands (23.6 per 100,000) and London (21.3 per 100,000) (Table 8). These regions all had significantly higher mortality rates for all occupied classes than England and Wales as a whole (19.0 per 100,000).

In the North West, the overall higher mortality rate compared to England and Wales as a whole was characterised by raised rates in each individual class. The death rate for men in Routine occupations (Class 7) in the North West was 45.1 per 100,000, which represented the highest rate in this study and was 43 per cent higher than for Routine workers in England and Wales as a whole (Figure 4 and Table 8).

In the North East, the West Midlands and London, the mortality rates were greater than for England and Wales in most classes (Table 8). A statistically significant difference in rates occurred

for the Small employers and own account workers class (Class 4) in London, which had a 41 per cent higher rate of alcohol-related mortality than in England and Wales (Table 8).

The lowest mortality rate for all occupied classes together occurred in the East of England, with a value (12.4 per 100,000) half that observed in the North West. The second lowest mortality rate for all occupied classes was in the South West (15.2 per 100,000), followed by the East Midlands and the South East (both 15.5 per 100,000).

The mortality rates of men in the South West, the East Midlands and the South East were lower than in England and Wales in most classes. The lowest mortality rate for men in this study occurred for Large employers and higher managers (Class 1.1) in the South East and Wales (approximately 4 per 100,000).

The socio-economic differences in alcohol-related mortality between Routine workers (Class 7) and Higher managers and professionals (Class 1) ranged between 2.5 (in the East Midlands) and 4.5 (in Wales) (Figure 5).

Age-standardised mortality rates by NS-SEC – Women

The regions with the highest mortality rates for occupied classes as a whole were the same for women as for men (Figure 4). The mortality rates in all occupied classes in the North-West (14.1 per 100,000) and in the North East (13.2 per 100,000) were significantly higher than in England and Wales as a whole (Table 9).

The mortality rates of women were higher in the North West than in England and Wales in each individual class. Women in Routine occupations (Class 7) in the North West had a rate of alcohol-related mortality (35.3 per 100,000) of a similar order of magnitude to men in Routine occupations (Class 7) in England and Wales as a whole (31.6 per 100,000).

Women in the North East had elevated mortality rates compared to England and Wales in most classes except in Semi-routine and Routine classes (Classes 6 and 7).

The lowest mortality rate for all women in occupied classes occurred in the East of England with a value (5.9 per 100,000) around 40 per cent lower than the one observed in the North West (14.1 per 100,000). The lowest mortality rate for women in this study occurred for Large employers and higher managers (Class 1.1) in the South East (approximately 2 per 100,000).

The socio-economic differences in alcohol-related mortality between Higher managers and professionals (Class 1) and Routine workers (Class 7) were consistently greater for women than for men across regions (Tables 8 and 9), except in the North East. Alcohol-related mortality rates were between five and 7.5 times higher for routine workers compared to Higher managers and professionals in the North West, Yorkshire and The Humber, West Midlands, London, South East and Wales. The highest relative difference between the Routine occupations and the Higher managerial and professional occupations (Class 1) was a factor of 7.4 in London.

Discussion

This analysis gives the first detailed breakdown of alcohol-related deaths by NS-SEC classes, age, gender and region. The results support both national and international literature reporting significant inequalities in alcohol-related mortality across socio-economic classes by age, gender and area (Romeri *et al.*, 2007; Harrison and Gardiner, 1999; Makela *et al.*, 1997).

For men, the socio-economic gradients presented in this article show that workers in Routine occupations (Class 7) had a rate of alcohol-related mortality about 3.5 times greater than those in Higher managerial and professional occupations (Class 1), which is higher than the gradients seen in male mortality from all circulatory diseases, all cancers and accidents (White *et al.,* 2008). These results are consistent with studies of male inequalities in alcohol-related mortality made in the last 20 years.

Breakwell *et al.,* 2007, using the Carstairs and Morris index of deprivation, found that there was a five-fold alcohol-related mortality ratio between the most and least deprived twentieths of the population of men (in the UK). Analysis of mortality by occupation (Romeri *et al.*, 2007) found that men tended to have higher Standardised Mortality Ratios (SMRs) for alcohol-related diseases in occupations associated with the Routine NS-SEC grouping. An earlier study using data from 1988–94 (Harrison and Gardiner, 1999) found that men in Social Class V (Unskilled Manual) had an SMR of 267 compared with 59.8 in Social Class I (Professional). By contrast, earlier data suggest that the social gradient in alcohol-related mortality was reversed in the middle of the 20th century. In 1951 liver disease mortality was higher for those in social class I, with a standard mortality ratio of 128 compared with 111 for social class V, and 63 for social class IV (OPCS, 1951).

For women, the results in the current study suggest that workers in Routine occupations had 5.7 times the mortality rate from alcohol-related causes than those working in Higher managerial and professional occupations, higher than the socio-economic gradients in mortality seen for women from cerebrovascular diseases and all cancers (Langford *et al.*, 2009). This is also substantially greater than the inequalities observed for men.

Previous literature concerning social variations in alcohol-related mortality for women suggests a possible change in the pattern of socio-economic inequalities in the last 20 years. Breakwell *et al.*, 2007, found that women in the most deprived five per cent of areas had alcohol-related mortality more than three times higher than those in the least deprived areas, a finding supporting the estimates of the current study. Erskine *et al.* (2010) also found a clear association between alcohol-related mortality and deprivation for women.

Evidence from the 1990s suggests that the social gradient in mortality for women was reversed at that time. The work of Harrison and Gardiner (1999) found that women in employment in Social Class V had a Standardised Mortality Ratio (SMR) in Social Class V of 68.4 compared to 149.6 in Social Class I. However, in that study, younger women in the manual classes were more likely to die from alcohol-related causes, but for older women it was those in the professional class who suffered elevated mortality. It is possible that the 'combined' NS-SEC classification used in the current analysis tended to increase the socio-economic gradient for women relative to earlier studies which referred only to working women and used the woman's own occupation.

For both men and women, age-specific mortality rates presented in this article show that the risk of alcohol-related mortality increased steeply from younger ages before either reaching a plateau or beginning to decrease in most NS-SEC classes, except for the most advantaged. The peak in alcohol-related mortality for Routine workers (Class 7) occurred at ages 50–54 for men compared to 45–49 for women. By contrast, for Managers and Professionals (Classes 1 and 2), the greatest alcohol-related mortality was observed in the oldest age group studied (55–59 for women and 60–64 for men), as it does for most non-external causes of death.

Mortality data (ONS, 2011) suggest that, despite advances in medical science, people in England and Wales are increasingly dying from alcohol-related causes at earlier ages. In 1991 there were 3,415 deaths directly attributable to alcohol. In men, 42 per cent of deaths were under the age of 55, and in women, 34 per cent. By 2009 the aggregate had grown to 7,099 deaths with 47 per cent under the age of 55 for men and 44 per cent for women. Baker and Rooney (2003) also showed that the increase in alcohol-related mortality rates between 1979 and 2000 was particularly large for men and women aged 25–44, indicating a faster rise in alcohol-related mortality at younger ages, across both genders over a period of 20 years.

Studies encompassing the last 20 years suggest that inequalities in alcohol-related mortality are wider at younger ages, at least for men. Erskine *et al.* (2010) suggested that for both men and women, the greatest alcohol-related mortality rate ratios for the most socio-economically deprived quintile of the population of England and Wales relative to the least deprived in 1999–2003, occurred at the ages 25–44 years. Harrison and Gardiner (1999) using data from 1988–92 found that men aged 25–39 in the unskilled Manual class (Social Class V) were 10–20 times more likely to die from alcohol-related causes than those in the Professional Social Class (Social Class I), whereas men aged 55–64 in Social Class V were only about 2.5–4 times more likely to die than their professional counterparts. However, the study of Harrison and Gardiner also suggested reverse inequalities for women aged 55–64.

The underlying reasons for the marked socio-economic gradient in alcohol-related deaths for both men and women are not clear. There are co-factors for the development of alcohol-related liver disease, of which perhaps the best documented is obesity (Hart *et al.*, 2010; Liu *et al.,* 2010). It has also been suggested that the gradient may be related to social drift, the idea that heavy drinkers tend to move down the social class scale. However, there is very limited evidence for such 'social selection' effects on mortality for other causes of death (Blane *et al.*,1999).

The key risk factor for alcohol-related death is alcohol intake and the obvious conclusion would be that men and women in Routine occupations (Class 7) drink considerably more than those in Higher managerial and professional occupations (Class 1). However, repeated population-based sampling surveys have suggested an inverse relationship between alcohol consumption and socio-economic class. The latest results of the General Lifestyle Survey (GLF) found that in 2009 in Large employer and higher managerial households, 25 per cent of men exceeded eight units and 18 per cent of women exceeded six units on at least one day in the week before interview, compared to 19 per cent of men and 9 per cent of women in Routine households (GLF, 2009). GLF data also suggested that the average alcohol weekly consumption in 2009 was 15.7 units in Large employers and higher managerial households compared to 10.7 units in Routine households (GLF, 2009).

Obtaining reliable information about drinking behaviour is known to be extremely difficult (Goddard *et al.*, 2001) and surveys such as the GLF consistently record lower levels of alcohol consumption than estimates based on alcohol sales. People may consciously or unconsciously underestimate the amount of alcohol they have consumed; this is a particular risk when the drinking occurs at home because the quantities consumed are not measured and are likely to be larger than those dispensed in licensed premises.

There is a particular problem obtaining accurate data for individuals consuming alcohol at levels outside social norms and for whom by definition the risk of alcohol-related death would be greater than the general population. It has been suggested that the addition of an established alcohol question set such as the WHO audit questionnaire to surveys might improve data quality (Saunders *et al.*, 1993).

It has been suggested that drinking patterns vary across socio-economic classes. The Marmot review (2010), commissioned by the Department of Health, acknowledged an inverse gradient for alcohol consumption, but highlighted that people with lower socio-economic status who consumed alcohol were more likely to have problematic drinking patterns and dependence. A study using data from the 1958 British Cohort Study showed that although men in unskilled manual social groups had higher levels of non-drinking, they were also more likely to binge drink (defined as drinking more than ten units of alcohol on one occasion) (Jefferis *et al.*, 2007).

It is likely that both aggregate deaths and the socio-economic differences in mortality rates observed at younger ages are largely determined by drinking patterns and habits acquired at a young age. Baker and Rooney (2003) showed that both sexes experienced a birth cohort effect between 1979 and 2000, whereby almost every successive five-year birth cohort had a higher alcohol-related mortality rate than the previous one at a given age. This tendency to carry drinking behaviour through life could partly explain some of the differences observed at different time periods. For example, the apparent inconsistency between the social gradients in mortality for women seen in the current study and that of Harrison and Gardiner (1999) might be the effect of a change over time in the drinking behaviour among young women in less advantaged classes, which was beginning to affect middle-aged women by 2001–03.

Despite the lack of clear evidence on class differences in alcohol consumption, it appears that trends in alcohol pricing have an effect on the socio-economic gradients seen in alcohol-related mortality. The recent modelling of the effect of the price of alcohol on rates of death and morbidity commissioned by the Department of Health, suggests the close links between price, consumption and ill health (Brennan *et al.,* 2009). The House of Commons, Alcohol, Health Committee report showed that the rate of duty on spirits per litre of pure alcohol in 1947 would have cost almost 60 per cent of the weekly average manual earnings of a man, but by 2002 the figure was less than 10 per cent (Health Select Committee, 2010). Information from the NHS Information Centre suggests that alcohol was 75 per cent more affordable in 2008 than in 1980 (NHS Health and Social Care Information Centre, 2009). It appears that as the relative price of alcohol has fallen, so the associated social gradient of deaths has reversed. The fact that alcohol has become more affordable might therefore affect different socio-economic groups differently.

The geographic variations in socio-economic differences found in this study were similar to those found for other causes (Siegler *et al.*, 2008) In particular alcohol-related mortality rates for both

sexes in the North West were significantly higher than the corresponding rates for England and Wales across several of the NS-SEC classes. The socio-economic gradients were higher for women compared to men in all areas with the exception of the North East where the gradient for women was 3.0 compared with 3.6 for men. The largest inequalities for men were observed in Wales (4.5), and for women were in London (7.4). In general, though, regional socio-economic gradients were less correlated with the general level of mortality than for other causes (Siegler *et al.*, 2008). For example, the socio-economic gradient in the North East was less than that in the South East, while aggregate deaths in the North East were greater.

While the socio-economic differences are clear in terms of mortality rates and age of death, the causes of these differences remain complex and can evolve rapidly as society changes.

Limitations of the analysis

The mortality rates reported here are from the causes which were agreed to be directly attributable to alcohol as defined by ONS for the purposes of comparison of trends (ONS Discussion paper, 2006). The figures do not take into account all deaths with a mention of alcohol and they do not reflect deaths in which alcohol was an attributable factor such as cancer of the upper gastrointestinal tract or breast. Deaths from accidents and violence caused by drinking are also excluded.

The commonest causes of death from binge drinking are intentional self-harm and road traffic accidents which occur most commonly in young people. According to analyses performed by the North West Public Health Observatory (Jones *et al.*, 2008) 22–26 per cent of deaths in young males, and 19–23 per cent of deaths in young females, in the 16–44 age band in England are alcohol-related. The majority of these deaths are not recorded as being due to alcohol.

Recent research has suggested that alcohol-related liver disease may be under-reported on the death certificate. A recent audit – by one of the authors of this report – of 477 deceased patients with alcohol-related liver disease found that 22 per cent had no mention of liver disease or alcohol on the death certificate (Sheron N., unpublished data). Conversely, the inclusion of all deaths from cirrhosis and chronic liver fibrosis, except those from primary biliary cirrhosis, in the alcohol-related definition may over estimate the number of deaths to some extent. In 2004, the Department of Health estimated there were 4,000–4,100 acute alcohol-related deaths and 11,300–17,900 deaths due to regular heavy drinking in England (Prime Minister's Strategy Unit, 2004).

A limitation when considering alcohol-related mortality by NS-SEC is the risk that people who misuse alcohol may be less likely to be in employment, therefore leading to a high proportion of alcohol-related deaths being excluded from this analysis. Results from this study indicate that 15 per cent of male deaths and 9 per cent of female deaths were excluded as their NS-SEC category was the 'non-occupied' group. Previous studies looking at the alcohol-related mortality rates by occupation also showed that there was a higher proportion of deaths with no occupation recorded when the underlying cause of death was alcohol-related compared with all registered deaths (Romeri *et al.*, 2007). Many people who were not in employment at the time of death were assigned to an NS-SEC category via a previous occupation. Nevertheless, a residual group remained impossible to classify by occupation and therefore by NS-SEC, and some of these may be among the most deprived.

In previous studies of health inequalities of adult mortality by socio-economic group, ONS has typically focused on either men or women. In this analysis, both men and women were considered and this poses some restriction in comparing their results. It was necessary to restrict the analysis for women to those aged 25–59, while for men it was for ages 25–64, since recording of occupation at census above this age is sparse (and non-existent above the age of 74).

Due to the good recording of husbands' occupations for women at death and the severe under recording of wife's occupation reported earlier, in this analysis a 'combined' classification approach was employed for women but not for men. The death registers during the period of the study did not recognise civil partnerships and thus women in such partnerships have been treated as single for the purpose of assigning an NS-SEC class. The same definition was used to obtain the census population so the results presented are consistent. However there is an argument for treating women and men in partnerships in the same way as if they were married.

In some of the findings presented, the number of underlying deaths was small, especially at regional level, leading to wide confidence intervals. This may lead to a degree of uncertainty in the interpretation of the resultant socio-economic gradients. However, the authors have been careful not to draw stronger conclusions than seem merited by the estimates.

Selective migration between regions may lead to bias since deaths are assigned to the region of usual residence at death, whereas the denominator is calculated using census data allocated to regions according to the workforce in 2001.

The study period was restricted to the period 2001–03 since the numerator and denominator must relate to the same period and it has only been possible to obtain population denominators classified by age, sex and socio-economic class, at the time of the decennial Census in 2001. In addition, the NS-SEC classification was introduced into official statistics only in 2001. For these reasons, the numerators and denominators were restricted to the three years beginning with that of the 2001 Census. The census figures were adjusted to reflect ONS estimated mid-year populations for 2001, 2002 and 2003. A series of analyses by NS-SEC (for example, males, males by cause, by region) were undertaken using the same denominators throughout (Langford *et al.*, 2009; Langford and Johnson, 2009; Siegler *et al.*, 2008; White *et al.*, 2008; White *et al.*, 2007).

Conclusions

This article presents the first analysis of alcohol-related mortality by NS-SEC for men and women of working age, using the National Statistics definition of alcohol-related mortality. The general socio-economic pattern of alcohol-related mortality found was consistent with previous research.

Substantial socio-economic gradients in alcohol-related mortality rates were observed both across England and Wales as a whole, and within the English regions and Wales. Men in Routine occupations had alcohol-related mortality rates 3.5 times higher than Higher managers and professionals, and for women the corresponding multiple was even higher, at 5.7. These inequalities in mortality were wider at younger ages. This was accounted for by the fact that alcohol-related mortality rates increased rapidly and peaked at younger ages in the Routine class (Class 7) whereas for Higher managers and professionals (Class 1) the rates increased steadily with age.

While these socio-economic gradients were present for both men and women, analysis of age-specific mortality rates suggested that the age at which mortality peaked differed between genders. The highest mortality rate among classes and age groups was observed in the Routine class for both men and women, but at ages 50–54 for men (52.2 per 100,000) compared with ages 45–49 for women (42.0 per 100,000).

There were further gender differences in the socio-economic patterns in alcohol-related mortality. Both men and women in the less advantaged classes (Classes 5, 6 and 7) had significantly higher rates of alcohol-related mortality than in England and Wales as a whole. However, women in Routine occupations (Class 7) had significantly higher mortality rates than women in Semi-routine occupations (Class 6), while rates for men in these classes showed no significant difference. The mortality rates of men in Semi-routine occupations (Class 6) were significantly higher than those in Lower supervisory and technical occupations (Class 5), and this was not the case for women.

Within England, the North West had the highest overall rates of alcohol-related mortality with particularly high rates in the Routine class for both sexes (45.1 per 100,000 population for men and 35.3 per 100,000 for women). The socio-economic gradients in mortality were higher for women than for men in all regions with the exception of the North East. In general, there was no association between the socio-economic gradients and the level of mortality across regions. For example, the North East had the lowest socio-economic gradient in mortality of all regions for women, despite having the second highest mortality rate of all regions.

The strong socio-economic gradient in alcohol-related deaths cannot be readily explained in terms of differences in the amounts of alcohol consumed. Further research is needed to identify what additional factors may determine the higher mortality risk found in less advantaged NS-SEC classes. However, historical data are consistent with the hypothesis that as the relative price of alcohol has fallen, so the social gradient has increased. This article does not attempt to address the economic issues involved in alcohol policy, but provides information on socio-economic patterns which may be valuable to assist in the development of public health policies to reduce alcohol-related harm.

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Disability-free life expectancy: comparison of sources and small area estimates in England, 2006–08

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Abstract

Background

Health expectancies (HEs) at sub-national geographies or by clusters of areas defined by relative deprivation are important tools to monitor inequalities in health. Previously, analyses have had limited usefulness due to a lack of timeliness or local relevance caused by limitations on the frequency or coverage of survey data. Here we explore the potential of the Annual Population Survey (APS) to provide robust estimates of disability-free life expectancy (DFLE) for men and women by clusters of area deprivation, English regions and local authority districts (LAs) in the period 2006–08.

Methods

DFLE estimates for the UK were compared using the prevalence of limiting long-standing illness (LLSI) calculated using data from the APS and from the General Lifestyle Survey (GLF) covering Great Britain and equivalent data from the Continuous Household Survey (CHS) covering Northern Ireland, aggregated over the period 2006–08. The further use of APS data for England enabled the calculation of estimates of DFLE at age 16 and at age 65 for men and women by area deprivation quintiles (each quintile comprises a fifth of areas ranked according to their relative deprivation), English regions and LAs in order to measure inequality in DFLE between these population groupings.

Results

The prevalence of LLSI and estimates of DFLE at national level were broadly comparable using APS and GLF/CHS data. Substantial inequality in DFLE was present between clusters of areas defined by relative deprivation and between English regions and LAs. The scale of inequality increased markedly with each finer geographical scale analysed.

Conclusions

The APS is a viable data source to provide LLSI data for use in DFLE estimation across a range of areas and clusters of area deprivation. While increasingly fine-grained analysis decreases statistical precision, it is possible to detect clear differences between areas within regions and in making comparisons with the England average. The estimates presented here provide scope to set benchmarks for assessing the impact of interventions designed to reduce inequality in DFLE beyond the period 2006–08.

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Introduction

Disability-free life expectancy (DFLE) is an estimation of the length of time that an individual can expect to live free from a limiting long-standing illness or disability, and therefore adds a qualitative dimension to measures of life expectancy (LE). The Office for National Statistics (ONS) routinely reports estimates of DFLE for males and females at birth and at age 65 in the UK and constituent countries; see for example ONS 2010. There is, however, a significant demand for robust estimates of DFLE at lower level geographies – for example, local authority districts (LAs) – to support the targeting of healthcare resources to those populations in most need and to monitor changes in health outcomes over time.

Background

Health inequalities have enormous social and economic costs. The recent Strategic Review of Health Inequalities in England post-2010 (Marmot, 2010) clearly highlights these and illustrates the likely benefits that would be realised if everyone experienced the same health as those in the most advantaged areas. The Review makes a compelling case for monitoring these inequalities more frequently at sub-national geographical scales to determine whether these inequalities, and their associated social and economic costs, are narrowing, persisting or widening over time in order to inform the effects of policy responses designed to improve the health outcomes of the disadvantaged and thereby reduce the inequality gap.

Health expectancies (HEs) are important outcome measures to monitor; a substantial body of literature demonstrates sizeable statistically significant geographical differences in these measures, strongly associated with the relative level of deprivation experienced by the area (Bajekal *et al.*, 2002; Bissett, 2002; Bajekal, 2005; ONS, 2006; Rasulo *et al.*, 2007; Olatunde *et al.*, 2010; Smith *et al.*, 2010a,b; White and Edgar, 2010). However, there has been a lack of consistent and timely measurement of these metrics between census years.

The calculation of HEs such as DFLE and healthy life expectancy (HLE) (that is, the length of time an individual can expect to live in very good or good health) at sub-national level requires survey data with substantial sample sizes and un-clustered designs. For this reason, sub-national health expectancies have largely relied upon census data or aggregated data from other survey sources. However, due to the length of the aggregate period or the timeliness of the data, such estimates have a limited value in monitoring the HE of a given population.

Here we explore the potential of the ONS APS (see Box 1) to produce estimates of DFLE for men and women over the period 2006–08; firstly at the national level and then by increasingly detailed scales of analysis in England including clusters of area deprivation, regions and LAs. Analyses will focus on the viability of the APS as a source to monitor change over time and against national and regional means.

To validate this approach, we firstly present a comparison of estimates of limiting long-standing illness and DFLE at national level derived from the APS with estimates derived from the GLF and CHS. These latter surveys currently form the basis of ONS national health expectancies but are too small to be used in the calculation of health expectancies at sub-national levels except when aggregated over relatively long periods.

Methods

In the first instance, the prevalence of self-reported limiting long-standing illness or disability among men and women in the UK and constituent countries for the period 2006–08 using the GLF/CHS was compared with figures derived from the APS over the same period. Only adults (aged 16 years and above) are included in this analysis as the APS does not collect data from children aged less than 16 years. Data derived from the GLF/CHS are not directly comparable with data derived from the APS due to differences in survey questions, survey design and weighting. Nevertheless, the GLF/CHS estimates provide important benchmarks with which to cross-validate estimates of disability obtained from the APS when evaluating the usefulness of this data source in constructing indicators of disability in the adult population. Further information about the survey sources is provided in Box 1.

The APS data were then used in the estimation of DFLE for men and women in England by clusters of Lower Super Output Areas (LSOAs) based on their Index of Multiple Deprivation (IMD) 2007 ranking, by English region and by English LA district level geographies. LA districts include unitary authorities, London boroughs, metropolitan districts and non-metropolitan districts in England. The Isles of Scilly and City of London were excluded from the analysis due to small sample sizes. Further information about LSOAs and the IMD 2007 is provided in Box 4.

Prevalence data from each survey source were combined with mortality data and mid-year population estimates (MYPE) over the analysis period to calculate estimates of DFLE at age 16 and at age 65 for men and women. Slope and Relative indices of inequality (SII and RII respectively) (see Box 5), were used to assess the absolute and relative inequality in LE and DFLE between clusters of deprivation. Boxes 1, 2, 3, 4 and 5 provide brief descriptions of the survey data and methods used in this analysis.

Box 1 Survey data

APS

The APS is a continuous quarterly survey of private households in the UK, NHS housing and students in halls of residence (who are included at their home address). The survey consists of waves 1 and 5 of the Labour Force Survey (LFS) and additional boost cases for England, Wales and Scotland (Ashton and Kent, 2008). For this analysis non-overlapping survey data for the period 2006–08 were selected from the APS, namely waves 1 and 4 of the APS boost cases in each year and wave 5 of the LFS in 2006, waves 1 and 5 of the LFS in 2007 and wave 1 of the LFS in 2008. Survey data were re-weighted by ONS to reflect this recombination and differ from weights in the original APS/LFS datasets. The resulting aggregated dataset consisted of more than 475,000 respondents aged 16 years and above. The APS does not include data relating to children aged less than 16 years.

It should be noted that the APS and LFS combined dataset comprises a mix of face-to-face (wave 1) and telephone interviews (waves 4 and 5). This may result in mode effects, where responses vary on the basis of interview method adopted. There may also be issues with attrition bias for respondents in waves 4 and 5 of the survey, who are repeat respondents to the survey. It is beyond the scope of this study to evaluate the likely effect of these differences and any potential bias that may arise.

For analyses below national level, each survey's individual record was mapped to appropriate geographical boundaries using the Royal Mail Postcode Address File.

GLF and CHS

The GLF is an annual longitudinal survey of private households in England, Wales and Scotland. This survey has a rotating panel design and, in each year, around a third of the total sample is made up of new entrants (wave 1). The data from these new entrants are treated as cross-sectional and are used in the calculation of national HE estimates. The CHS is an annual cross-sectional survey of private households in Northern Ireland. Data from the CHS are combined with cross-sectional data from the GLF to calculate UK HE estimates. In the period 2006–08 this aggregated dataset consisted of more than 28,000 respondents aged 16 years and above. National estimates of HE at birth and at age 65 in the UK (ONS, 2010) also include estimates of the health of residents of medical and care communal establishments. The analyses in this report do not include this population and so will not match published estimates of DFLE at age 65 (ONS, 2010).

Box 2 Limiting long-standing illness or disability

APS

Respondents to the APS were considered to have a limiting long-standing illness or disability if they responded 'Yes' to the following two questions:

> Do you have any health problems or disabilities that you expect will last for a year or more?
>
> Yes/No

If 'Yes' the respondent is then asked;

> Do these health problems or disabilities, when taken singly or together, substantially limit your ability to carry out normal day to day activities? If you are receiving medication or treatment, please consider what the situation would be without the medication or treatment.
>
> Yes/No

The questions asked in this data source are based on a number of criteria included in the Disability Discrimination Act, 1995 and 2005

GLF/CHS

Respondents to the GLF/CHS were considered to have a limiting long-standing illness or disability if they responded 'Yes' to the following questions:

> Do you have any long-standing illness, disability or infirmity – by long-standing I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time?
>
> Yes/No

If 'Yes' the respondent is then asked;

> Does this illness or disability (Do any of these illnesses or disabilities) limit your activities in any way?
>
> Yes/No

Box 3 Disability-free life expectancy (DFLE)

DFLE divides LE into estimated periods of life spent with and without a limiting long-standing illness or disability. This metric is calculated using the Sullivan period life table method which combines the prevalence of limiting long-standing illness or disability (see Box 2) with mortality data and MYPEs (Sullivan, 1971; Jagger, 1996). For these analyses, all data were aggregated over the three-year period 2006–08. MYPEs were adjusted to match the private household population by subtracting numbers resident in communal establishments; however, the mortality data used represent the entire population of adults aged 16 years and above. Exclusion of the communal establishment population from survey data and MYPEs will tend to underestimate the prevalence of disability in the population and therefore lead to a slight skew in the analysis, particularly if there are large differences in the size of communal establishment populations across areas or clusters of deprivation. However, it is considered unlikely that the inclusion of communal establishment deaths in the mortality data materially alters the main findings of this study.

Estimates of DFLE differ in statistical precision depending on survey sample size, such that those with relatively large samples are more precise than those with smaller samples. This issue is particularly important for LA estimates. Estimates of LE and DFLE for men and women aged 65 are not presented by LA due to the high level of statistical imprecision.

Box 4 Area deprivation

The IMD 2007 combines seven distinct domains of data to produce a single measure of relative deprivation for each LSOA in England. Similar measures have also been constructed for Wales, Northern Ireland and Scotland (Noble *et al.*, 2001, 2003; National Assembly for Wales, 2005) although these are not comparable across countries. For this study, analyses by IMD 2007 are restricted to England. LSOAs are relatively similar in terms of population size and structure; each has approximately 1,500 residents. The 32,482 LSOAs in England can be ranked according to their IMD 2007 scores and grouped for subsequent analyses. Such groupings represent a continuum of relative deprivation: they are discrete groupings of areas, with a significant extent of difference within them.

The IMD has been criticised as conceptually problematic when used in health-related studies as it includes health as one of its deprivation domains (Morgan and Baker, 2006). Therefore, measurements of health using the IMD to group different areas may potentially suffer from mathematical-coupling where the integral health domain of the IMD biases the relationship with the health outcome under investigation. Recent studies however, have found little evidence to support this effect, concluding that the presence or absence of the health domain in the IMD has little or no effect in biasing the relationship between health and deprivation, particularly with regard to general health, limiting persistent illness and/or mortality as outcome measures (Adams and White, 2006; Gartner *et al.*, 2008).

Box 5 Slope and Relative indices of inequality

To calculate the slope and relative index of inequality:

The quintiles were ordered by decreasing area deprivation, that is, from the most to the least deprived. The fraction of the total population in each quintile (*f*) was calculated. The cumulative frequency (c_i), that is the cumulative fraction of the population in successively less deprived quintiles, was also obtained and the relative deprivation rank (x) for each quintile was calculated as:

$$x = c_{i-1} + (0.5 \times f)$$

The SII (slope of the regression line) was then estimated by regressing DFLE for each quintile against the relative deprivation rank (x), weighted by the population in each quintile. SII can be interpreted as the difference in DFLE between the least and most deprived areas, taking into account deprivation across all areas.

The RII was calculated using the method described by Mackenbach and Kunst (1997). First, the predicted value of DFLE ($\hat{y}$) for the least deprived quintile, taking into account its relative deprivation rank, was estimated using a linear regression model. The SII was then divided by the predicted DFLE value, (SII / $\hat{y}$). The result obtained represents the ratio of the DFLE of the most deprived areas to that of the least deprived. This was then expressed as a relative ratio by adding 1 to it, giving the modified RII.

$$\text{Modified } \mathbf{RII = 1 + (SII / \hat{y})}$$

Results

All data are available online at www.statistics.gov.uk/hsq/downloads/hsq50art2.xls. Data are presented according to scale of analysis, such that national figures, including the comparison between survey sources, are presented first, followed by clusters of area deprivation, region and finally LA.

Country comparisons by sex and survey source

Prevalence of limiting long-standing illness or disability

The prevalence of LLSI was broadly consistent for men and women in the UK and constituent countries in each source (see Table 1).

Table 1 Sample size and weighted prevalence of LLSI in adults (16 years and above); by source, country and sex, 2006–08

UK

Number, Per cent

		GLF/CHS[1]		APS[2]	
		Sample size	LLSI prevalence (per cent)	Sample size	LLSI prevalence (per cent)
Men	UK	13,229	*19.9*	225,916	*19.4*
	Great Britain	7,402	*19.8*	220,296	*19.3*
	England	6,327	*19.1*	168,047	*19.0*
	Wales	416	*25.9*	22,115	*23.4*
	Scotland	659	*22.6*	30,134	*20.8*
	Northern Ireland	5,827	*21.6*	5,620	*20.1*
Women	UK	15,585	*22.7*	249,264	*22.4*
	Great Britain	8,570	*22.5*	243,104	*22.3*
	England	7,329	*22.3*	185,055	*21.9*
	Wales	467	*23.0*	24,094	*26.2*
	Scotland	774	*23.8*	33,955	*24.3*
	Northern Ireland	7,015	*25.2*	6,160	*23.2*

1 Great Britain based on cross-sectional component of GLF; Northern Ireland derived from the CHS; excludes residents of communal establishments

2 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

Source: ONS

For men APS prevalence estimates of LLSI were lower than those derived from the GLF/CHS. Differences ranged from just 0.1 per cent for England to 2.5 per cent for Wales; however, the direction of these differences was consistent between sources.

For women, there was no consistent pattern by source; the prevalence of LLSI in the APS was lower in the UK, Great Britain, England and Northern Ireland; but was higher for Wales and Scotland. Differences ranged from 0.2 per cent for Great Britain to 3.2 per cent for Wales.

Disability–free life expectancy

Estimates of DFLE at age 16 and at age 65 for men and women derived from APS prevalence data were lower in the UK, Great Britain, England, Wales and Scotland than those from the GLF/CHS. However, for Northern Ireland, DFLE for both sexes at age 16 were lower using CHS prevalence data, and for females at age 65, DFLEs based on CHS and APS data were equivalent (see Tables 2 and 3).

For men, DFLE at ages 16 and 65 were significantly lower in the UK, Great Britain and England using APS data compared with estimates based on GLF/CHS data. Differences observed between sources were not significant for Wales, Scotland or Northern Ireland (see Table 2).

Table 2 LE and DFLE for men at age 16 and at age 65; by survey source and country; 2006–08

UK

Years

	GLF/CHS[1]				APS[2]		
	LE	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval
Age 16							
UK[3]	62.0	49.1	48.7	49.5	48.3	48.2	48.4
Great Britain[3]	62.0	49.3	48.8	49.9	48.4	48.2	48.5
England[3]	62.3	49.8	49.2	50.4	48.8	48.7	48.9
Wales	61.4	46.4	44.0	48.9	45.3	45.0	45.7
Scotland	59.5	46.5	44.8	48.2	45.6	45.3	45.9
Northern Ireland	61.0	46.6	46.0	47.2	46.9	46.2	47.5
Age 65							
UK[3]	17.4	10.5	10.2	10.8	9.7	9.6	9.8
Great Britain[3]	17.4	10.6	10.2	11.0	9.7	9.6	9.8
England[3]	17.5	10.8	10.3	11.2	9.9	9.8	10.0
Wales	17.1	9.4	7.8	11.1	8.3	8.0	8.6
Scotland	16.2	9.6	8.4	10.9	8.3	8.0	8.5
Northern Ireland	16.8	9.1	8.6	9.6	9.3	8.8	9.9

1 Great Britain based on cross-sectional component of GLF; Northern Ireland derived from the CHS; excludes residents of communal establishments

2 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

3 Significant differences in DFLE between GLF/CHS and APS

Source: ONS

Although small differences in DFLE at age 16 for men were detected using each source's prevalence data, the pattern by country was similar. Table 2 shows that DFLE was highest in England and lowest in Wales; the difference in DFLE was smallest for Northern Ireland (0.3 years) and greatest for Wales (1.1 years).

At age 65, DFLE for men was also highest in England for both data sources; however, the lowest estimate based on the CHS was in Northern Ireland and based on the APS was in Scotland and Wales. The difference in DFLE for each country by source was smallest for Northern Ireland (0.3 years) and greatest for Scotland (1.4 years).

For women, DFLE at age 16 based on the APS was significantly lower in the UK, Great Britain and Wales compared with that based on the GLF/CHS; at age 65 the same pattern was present in the UK, England, Wales and Scotland. Differences in DFLE between sources were not significant for Northern Ireland at both ages analysed (see Table 3).

Table 3 LE and DFLE for women at age 16 and at age 65; by survey source and country; 2006–08

UK

Years

	GLF/CHS[1]				APS[2]		
	LE	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval
Age 16							
UK[3]	66.1	50.1	49.7	50.6	49.3	49.2	49.4
Great Britain[3]	66.2	50.4	49.7	51.0	49.3	49.2	49.5
England	66.4	50.5	49.9	51.2	49.8	49.7	49.9
Wales[3]	65.7	50.5	48.0	53.1	46.1	45.7	46.4
Scotland	64.3	48.7	46.8	50.6	46.8	46.5	47.2
Northern Ireland	65.7	47.5	46.9	48.2	48.1	47.4	48.8
Age 65							
UK[3]	20.0	11.3	10.9	11.6	10.3	10.2	10.4
Great Britain[3]	20.0	11.4	10.9	11.8	10.3	10.2	10.4
England[3]	20.2	11.4	10.8	11.9	10.5	10.4	10.7
Wales[3]	19.8	11.8	10.1	13.6	8.8	8.5	9.1
Scotland[3]	18.8	11.2	9.9	12.6	9.1	8.8	9.3
Northern Ireland	19.8	9.8	9.3	10.4	9.8	9.3	10.4

1 Great Britain based on cross-sectional component of GLF; Northern Ireland derived from the CHS; excludes residents of communal establishments

2 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

3 Significant differences in DFLE between GLF/CHS and APS

Source: ONS

For women, DFLE at age 16 was highest in England for both data sources. The lowest DFLE, however, differed by source: Northern Ireland based on the CHS and Wales based on the APS. The difference in the DFLE for each country by source was smallest for Northern Ireland (0.6 years) and greatest for Wales (4.5 years).

At age 65, the highest DFLE for women varied by data source: Wales based on the GLF and England based on the APS. The lowest DFLE also varied by source: Northern Ireland based on the CHS and Wales based on the APS. The difference in DFLE for each country by source was greatest for Wales (3.0 years); in Northern Ireland no difference was present.

Limiting long-standing illness or disability, life expectancy and disability-free life expectancy by area deprivation; England, 2006–08

Prevalence of limiting long-standing-illness

There was a largely even distribution of respondents in the APS England sample across quintiles of deprivation, ranging from 19.3 to 21.2 per cent of the population in each area cluster (see Table 4).

Table 4 **Prevalence of limiting long-standing illness in England[1,2]: by area deprivation quintile, 2006–08**

England

	Deprivation quintile	Persons	Per cent by area	LLSI Prevalence (per cent)	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval
Men	1 - least deprived	33,345	19.8	15.1	15.0	15.1
	2	33,714	20.1	16.7	16.7	16.8
	3	33,690	20.0	18.0	18.0	18.0
	4	33,331	19.8	20.7	20.6	20.7
	5 - Most deprived	33,966	20.2	25.1	25.1	25.2
Total/Ratio (5/1)		168,046	..	1.7	1.6	1.7
Women	1 - least deprived	35,716	19.3	17.7	17.6	17.7
	2	36,603	19.8	19.7	19.7	19.7
	3	36,431	19.7	21.1	21.1	21.2
	4	37,077	20.0	23.9	23.9	23.9
	5 - Most deprived	39,228	21.2	27.7	27.7	27.8
Total/Ratio (5/1)		185,055	..	1.6	1.5	1.6

1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

2 Estimates of LLSI in each quintile are based upon weighted survey data taking into account both non-response and the age structure and sex of survey respondents. Data are not age-standardised.

3 Does not match England total for males in Table 1 due to missing location data for a single individual

Source: ONS

Table 4 shows that the prevalence of LLSI increased significantly for both men and women with increasing deprivation. Notably there was a 10 percentage point higher prevalence of LLSI in the most compared with the least deprived areas.

For men in the least deprived areas, 15.1 per cent reported an LLSI. In the most deprived areas this figure was 25.1 per cent. Men in these areas were therefore 70 per cent more likely to report an LLSI than their counterparts in the least deprived areas.

For women, the prevalence of LLSI was significantly greater in each quintile than for men. In the least deprived areas, 17.7 per cent of women reported an LLSI rising to 27.7 per cent in the most

deprived areas. Women in the most deprived areas were therefore 60 per cent more likely to report an LLSI.

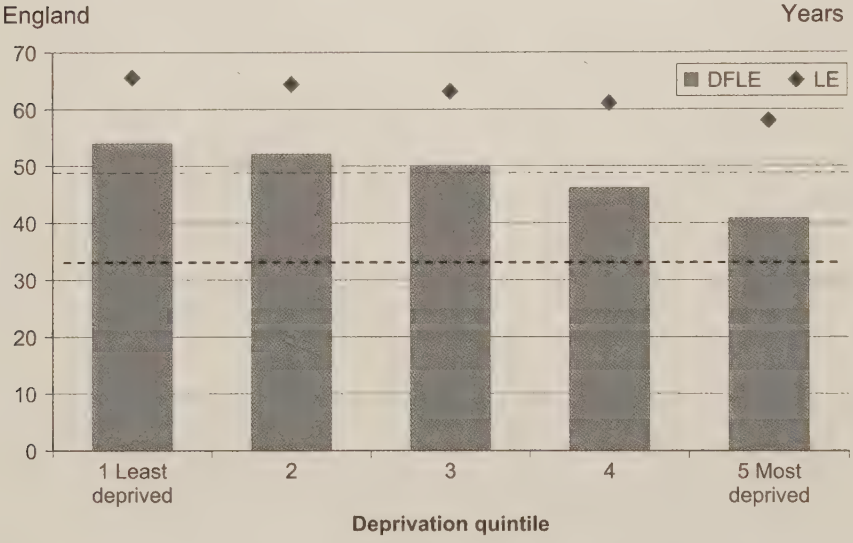
DFLE by area deprivation

In 2006–08, people living in the least deprived areas in England could expect significantly longer LE and DFLE than their counterparts in more deprived areas. Thus people in the least deprived areas spend a significantly greater proportion of their significantly longer lives free from a disability compared with those in the most deprived areas. DFLE for men and women at ages 16 and 65 fell significantly with each successive increase in relative deprivation (see Figures 1 to 4). It is notable that the inequality in DFLE across areas was substantially greater than the inequality in LE.

Men at age 16

At age 16, men living in the least deprived areas could expect to spend a further 54.0 years free from a disability; 13.2 years more their counterparts living in the most deprived areas who could expect a further 40.8 years free from disability (see Figure 1).

Figure 1 **LE and DFLE for men at age 16[1]: by IMD 2007 quintile, 2006–08**



Quintile	LE	DFLE
1	65.6	54.0
2	64.4	52.1
3	63.1	50.1
4	61.1	46.1
5	58.0	40.8
Range[2]	7.6	13.2
Ratio	1.13	1.32
SII	9.1	16.2
RII	1.14	1.29

1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

2 Estimates are rounded and may therefore not match the apparent difference in rounded estimates for quintiles 1 and 5

---- England DFLE average

Source: ONS

DFLE at age 16 was 32 per cent higher for men in the least deprived areas compared with those in the most deprived areas. The absolute difference in DFLE between quintile extremes taking into account deprivation across all quintiles, as measured by the SII, was 16.2 years and the relative inequality as measured by the modified RII was 1.29.

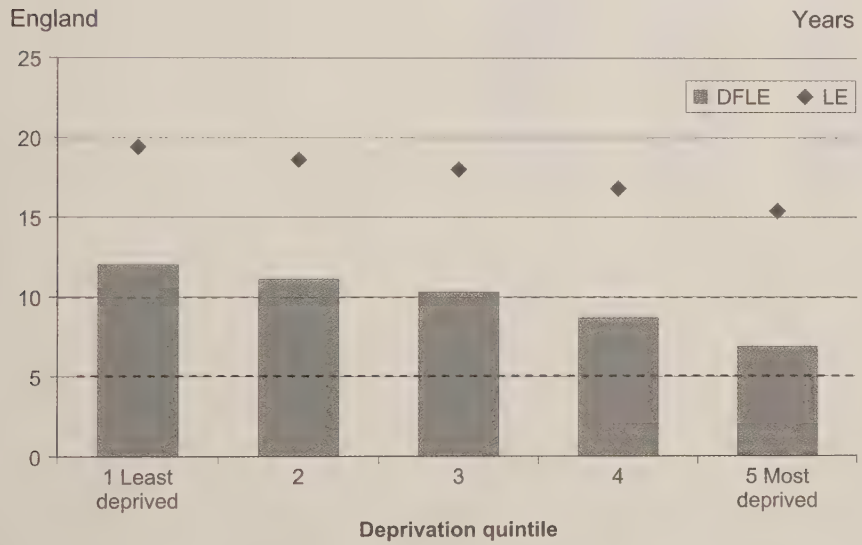
As a proportion of LE, those in the least deprived areas could expect to spend on average approximately 82 per cent of their remaining lives free from disability compared with only 70 per cent for those in the most deprived areas.

DFLE in the least deprived areas was 5.2 years higher and in the most deprived areas 8 years lower than the England average of 48.8 years.

Men at age 65

At age 65, men living in the least deprived areas could expect to spend 12.0 years of their remaining lives free from disability; 5.2 years more than their counterparts living in the most deprived areas who could expect to spend a further 6.9 years free from disability (see Figure 2).

Figure 2 **LE and DFLE for men at age 65[1]: by IMD 2007 quintile, 2006–08**



Quintile	LE	DFLE
1	19.4	12.0
2	18.6	11.1
3	18.0	10.3
4	16.8	8.7
5	15.4	6.9
Range[2]	4.0	5.2
Ratio	1.26	1.75
SII	4.7	6.1
RII	1.24	1.50

1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

2 Estimates are rounded and may therefore not match the apparent difference in rounded estimates for quintiles 1 and 5

---- England DFLE average

Source: ONS

DFLE for men aged 65 living in the least deprived areas was 74 per cent higher than for those in the most deprived areas. The absolute difference in DFLE between quintile extremes taking into account deprivation across all quintiles, as measured by the SII, was 6.1 years and the relative inequality as measured by the modified RII was 1.50.

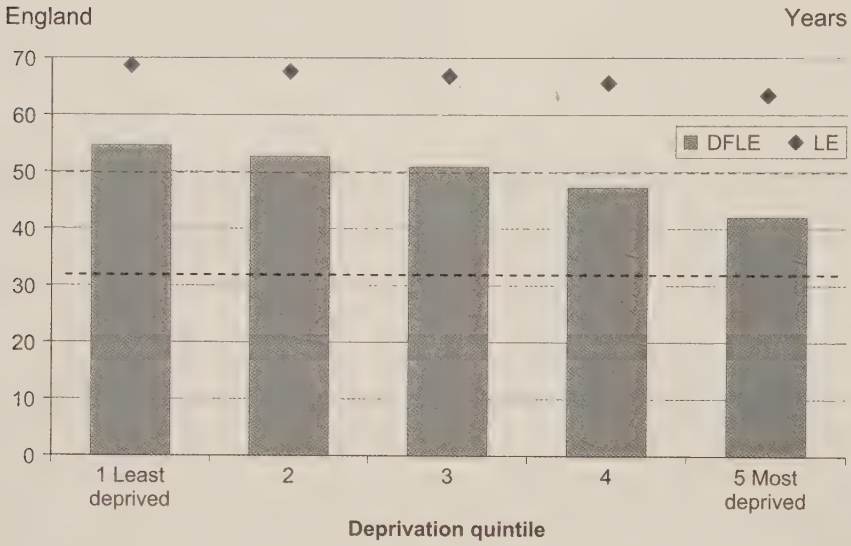
By age 65, the proportion of life spent without disability had reduced to 62 per cent for men in the least deprived areas and 45 per cent for their counterparts in the most deprived areas.

DFLE in the least deprived areas was 2.0 years higher and in the most deprived areas 3.0 years lower than the England average of 9.9 years.

Women at age 16

At age 16, women living in the least deprived areas could expect to spend 54.6 years free from disability; 12.6 years more than their counterparts living in the most deprived areas who could expect to spend 42.0 years free from disability (see Figure 3).

Figure 3 **LE and DFLE for women at age 16[1]: by IMD 2007 quintile, 2006–08**



Quintile	LE	DFLE
1	68.7	54.6
2	67.6	52.7
3	66.8	50.9
4	65.6	47.2
5	63.4	42.0
Range[2]	5.3	12.6
Ratio	1.08	1.30
SII	6.2	15.6
RII	1.09	1.28

1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

2 Estimates are rounded and may therefore not match the apparent difference in rounded estimates for quintiles 1 and 5

---- England DFLE average

Source: ONS

The DFLE of women aged 16 in the least deprived areas was 30 per cent higher than for those in the most deprived areas. The absolute difference in DFLE between quintile extremes taking into account deprivation across all quintiles, as measured by the SII, was 15.6 years and the relative inequality as measured by the modified RII was 1.28.

In the least deprived areas women could expect to spend approximately 80 per cent of their remaining lives at age 16 without a disability compared with 66 per cent for those in the most deprived areas.

DFLE in the least deprived areas was 4.8 years higher and in the most deprived areas 7.8 years lower than the England average of 49.8 years.

Women at age 65

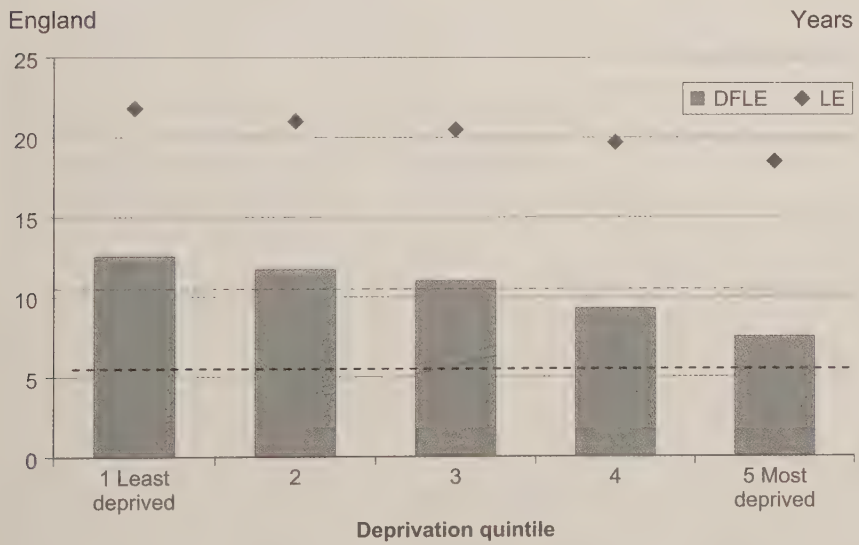
At age 65, women living in the least deprived areas could expect to spend 12.6 years of their remaining lives free from disability; 5.0 years more than their counterparts in the most deprived areas who could expect to spend a further 7.5 years free from disability (see Figure 4).

DFLE for these women was 67 per cent higher in the least deprived areas than in the most deprived areas. The absolute difference in DFLE between quintile extremes taking into account deprivation across all quintiles, as measured by the SII, was 6.1 years and the relative inequality as measured by the modified RII was 1.47.

In addition, the proportion of life these women could expect to spend without disability was approximately 58 per cent in the least deprived areas and only 40 per cent in the most deprived areas.

DFLE in the least deprived areas was 2.1 years higher and in the most deprived areas 3.0 years lower than the England average of 10.5 years.

Figure 4 **LE and DFLE for women at age 65[1]: by IMD 2007 quintile, 2006–08**



Quintile	LE	DFLE
1	21.8	12.6
2	21.0	11.7
3	20.5	11.0
4	19.7	9.3
5	18.5	7.5
Range[2]	3.3	5.0
Ratio	1.18	1.67
SII	3.8	6.1
RII	1.17	1.47

1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

2 Estimates are rounded and may therefore not match the apparent difference in rounded estimates for quintiles 1 and 5

---- England DFLE average

Source: ONS

Life expectancy and disability-free life expectancy by English region, 2006–08

LE and DFLE at age 16 and 65 for men and women varied significantly across the nine regions of England with a clear north-south divide (see Tables 5 to 9). DFLE at age 16 for both men and women was lowest in the North East and highest in the South East. LE predominantly followed this pattern in most cases. The results presented here are based on rankings of DFLE and do not reflect a similar ranking in LE.

Men at age 16

At age 16, men in the North East could expect to live, on average, a further 61.0 years; almost three-quarters (73 per cent, 44.2 years) of this time spent disability-free. By contrast, men's life expectancy at age 16 in the South East was 63.7 years, with more than 80 per cent (51.3 years) spent disability-free (see Table 5). The gap in DFLE between these regions was 2.5 times greater than the equivalent gap in LE.

Contrasts between the North East and North West regions are also noteworthy; despite having identical LE at 61.0 years, DFLE for men aged 16 in the North West was 2.6 years higher than for men in the North East.

Table 5 **LE and DFLE for men at age 16[1]: by English region, 2006–08**

England

Years, Per cent

Region	LE	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	Percentage of life disability-free
North East	61.0	44.2	43.8	44.7	*72.6*
North West	61.0	46.8	46.5	47.1	*76.8*
Yorkshire and The Humber	61.8	47.1	46.7	47.5	*76.2*
East Midlands	62.4	48.1	47.7	48.6	*77.1*
West Midlands	61.9	48.5	48.1	48.9	*78.4*
East of England	63.5	50.7	50.3	51.1	*79.9*
London	62.8	48.9	48.5	49.3	*77.9*
South East	63.7	51.3	50.9	51.6	*80.5*
South West	63.5	50.4	50.0	50.8	*79.3*
England	62.3	48.8	48.7	48.9	*78.3*
Range (South East/North East)	2.7	7.0	6.4	7.6	..

1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

Source: ONS

Men at age 65

Similar patterns in the ranking of LE and DFLE were apparent for men aged 65; both metrics were lowest in the North East and highest in the South East. In the North East, men could expect to live, on average, a further 16.7 years; but less than half of this time (47 per cent: 7.8 years) was spent disability-free. By contrast, men in the South East could expect to spend 61 per cent of their remaining lives disability-free (11.2 years out of 18.4 years) (see Table 6).

For men aged 65 the gap in DFLE between the North East and South East was 3.4 years; almost twice the gap in LE of 1.8 years. Hence while LE in the South East was 11 per cent higher than in the North East, DFLE was 44 per cent higher.

For men, the difference in the proportion of life spent without disability between the regions with the highest and lowest DFLE was greater at age 65 than at age 16; only 8 percentage points at age 16 and more than 14 percentage points at age 65

Table 6 LE and DFLE for men at age 65[1]: by English region, 2006–08

England

Years, Per cent

Region	LE	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	Percentage of life disability-free
North East	16.7	7.8	7.4	8.2	*46.7*
North West	16.8	9.1	8.8	9.3	*53.9*
Yorkshire and The Humber	17.2	9.0	8.7	9.3	*52.0*
East Midlands	17.5	9.4	9.0	9.7	*53.4*
West Midlands	17.4	9.8	9.5	10.1	*56.5*
East of England	18.2	10.9	10.6	11.2	*59.7*
London	18.1	9.8	9.5	10.2	*54.3*
South East	18.4	11.2	11.0	11.5	*60.9*
South West	18.4	11.0	10.7	11.3	*59.6*
England	17.5	9.9	9.8	10.0	*56.6*
Range (South East/North East)	1.8	3.4	3.0	3.9	..

1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

Source: ONS

Women at age 16

For women at age 16, LE and DFLE were not similarly ranked. Although both metrics were lowest in the North East, LE was highest in the South West while DFLE was highest in the South East.

Those in the North East could expect to live, on average, for a further 65.1 years, with less than three-quarters (69 per cent, 45.2 years) spent disability-free. By contrast, those in the South East had a LE of 67.4 years, expecting to spend 77 per cent (51.8 years) of it disability-free (see Table 7).

There was a gap of 2.3 years in LE between the South East and the North East but the gap in DFLE between them was almost three times greater at 6.6 years. As with men, although LE at age 16 for women in the North East and North West regions was almost identical, DFLE was 2.3 years higher in the North West than in the North East.

Table 7 LE and DFLE for women at age 16[1]: by English region, 2006–08

England

Years, Per cent

Region	LE	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	Percentage of life disability-free
North East	65.1	45.2	44.7	45.7	*69.4*
North West	65.1	47.5	47.1	47.8	*72.9*
Yorkshire and The Humber	65.9	48.1	47.7	48.5	*73.1*
East Midlands	66.3	49.4	48.9	49.8	*74.4*
West Midlands	66.2	49.4	49.0	49.8	*74.7*
East of England	67.2	51.5	51.1	52.0	*76.7*
London	67.2	50.4	50.0	50.8	*75.0*
South East	67.4	51.8	51.4	52.1	*76.9*
South West	67.5	51.6	51.2	52.0	*76.4*
England	66.4	49.8	49.7	49.9	*75.0*
Range (South East/North East)	2.3	6.6	6.0	7.2	..

1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

Source: ONS

Women aged 65

Similar patterns in the ranking of LE and DFLE were apparent for women aged 65; lowest in the North East and highest in the South West. In the North East, women could expect to live for a further 19.2 years, with less than half (43 per cent; 8.3 years) spent disability-free. By contrast, women in the South West could expect to spend 56 per cent (11.9 years) of their remaining lives disability-free (see Table 8).

For women aged 65, the gap in DFLE between the North East and South West was 3.6 years; 75 per cent higher than that in LE; 2.0 years.

For women, the difference in the proportion of life spent without disability between the regions with the highest and lowest DFLE was greater at age 65 than at age 16; at age 16 almost 8 per cent and at age 65 more than 13 per cent.

Table 8 LE and DFLE for women at age 65[1]: by English region, 2006–08

England

Years, Per cent

Region	LE	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	Percentage of life disability-free
North East	19.2	8.3	7.9	8.7	*43.2*
North West	19.4	9.4	9.1	9.6	*48.4*
Yorkshire and The Humber	19.8	9.8	9.5	10.1	*49.5*
East Midlands	20.2	10.2	9.8	10.6	*50.4*
West Midlands	20.1	10.6	10.2	10.9	*52.5*
East of England	20.7	11.2	10.9	11.6	*54.1*
London	20.9	10.8	10.4	11.1	*51.5*
South East	21.0	11.5	11.3	11.8	*55.0*
South West	21.2	11.9	11.6	12.2	*56.3*
England	20.2	10.5	10.4	10.6	*52.0*
Range (South West/North East)	1.9	3.6	3.1	4.1	..

1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

Source: ONS

Life expectancy and disability-free life expectancy for men and women at age 16 by local authority district; England, 2006–08

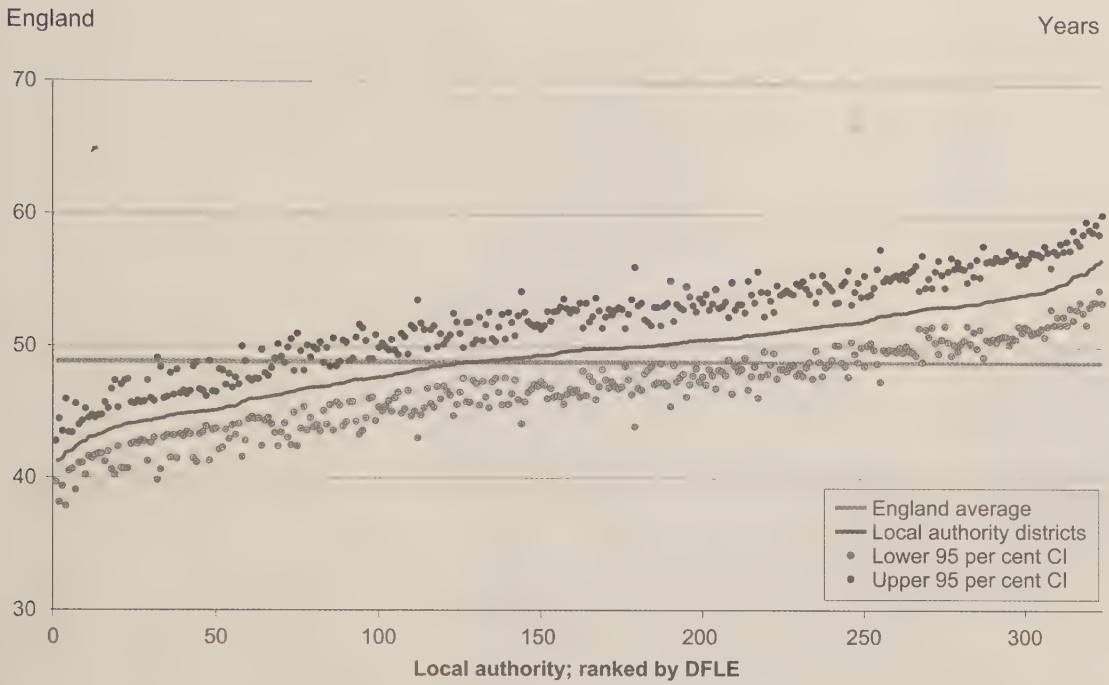
Data for the highest and lowest LAs in each region are presented consecutively. The local authority sample sizes available from APS survey data ranged from just 180 people in West Somerset to 4,242 people in Birmingham. At age 16 the precision of DFLE estimates for men and women ranged from 4 to 24 per cent around the point estimate; the mean was 11 per cent. At age 65 the equivalent range was 16 to 112 per cent; the mean was 42 per cent. For this reason this article does not present analyses at age 65, however, the accompanying Excel workbook contains all estimates of LE and DFLE and associated 95 per cent CIs at age 16 and 65 by sex. When analysed by fifths ranked according to DFLE, six LAs in the lowest fifth, representing just 2 per cent of all LAs, were not significantly different from the England average. For females this figure was slightly higher, with 10 LAs not significantly different from the England average, representing around 3 per cent of all LAs. At the other end of the scale, for males just one LA in the top fifth of LAs by DFLE was not significantly different from the England average, representing less than 1 per cent of all LAs. For females, this figure was again slightly higher with four LAs in the top fifth that were not significantly different from the England average, representing around 1 per cent of all LAs.

Men at age 16

LE varied by more than 10 years across the LAs, ranging from 58.3 years in Blackpool to 68.6 years in Kensington and Chelsea. The range in DFLE at age 16 was more than 15 years across LAs, ranging from 41.2 years in Barnsley to 56.8 years in Surrey Heath (see Figure 5).

Of the 324 LAs in the analysis, 65 LAs had DFLE estimates that were significantly lower than the England average of 48.8 years (95 per cent confidence interval (CI), 48.7–48.9 years). Of these, 59 were in the lowest fifth of LAs when ranked by DFLE, representing 91 per cent of this grouping. By contrast, 82 LAs had DFLE estimates that were significantly higher than the England average and 63 of these were placed in the highest fifth, representing 77 per cent of this grouping.

Figure 5 DFLE for men at age 16[1]: by local authority district, 2006–08



1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

Source: ONS

Summary statistics for LAs by English region for men in 2006–08 are shown in Table 9 and Figures 6 and 7.

In the North East and North West, 83 per cent and 97 per cent of LAs respectively were in the bottom fifth of all LAs in England when ranked by DFLE. None of the LAs in the North East and only one (3 per cent) in the North West appeared in the top fifth in England. The North East had no LAs with DFLE estimates significantly higher than the England average; in the North West three (8 per cent) LAs were significantly higher.

By contrast, in the South East and South West just 6 per cent of LAs were in the lowest fifth in England when ranked by DFLE; 40 per cent and 25 per cent respectively were in the highest fifth. Six per cent of LAs in the South East and South West had estimates of DFLE that were significantly lower than the England average and 46 per cent and 31 per cent respectively had estimates of DFLE that were significantly higher than the England average.

Table 9 Summary statistics[1] of DFLE for men aged 16: by local authority district, 2006–08

England

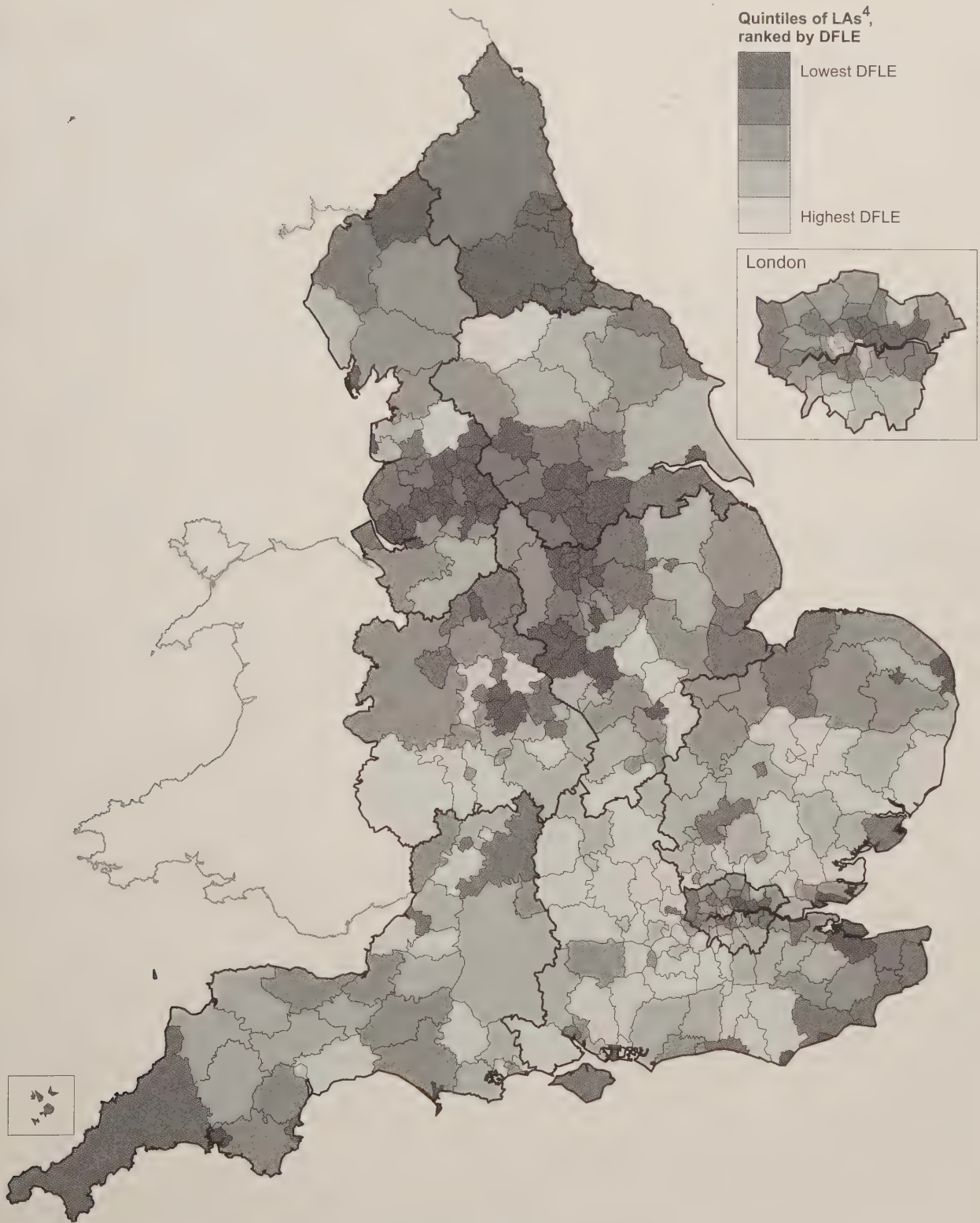
English Region	Number in lowest fifth of LAs (per cent)	Number in highest fifth of LAs (per cent)	Number significantly lower than England average (per cent)	Number significantly higher than England average (per cent)	LA with highest DFLE, years (95 per cent CI)	LA with lowest DFLE, years (95 per cent CI)
North East	10 (83%)	0	11 (92%)	0	Northumberland, 48.0 (46.6-49.4)	Sunderland, 41.9 (40.5-43.4)
North West	38 (97%)	1 (3%)	28 (72%)	3 (8%)	Ribble Valley, 54.3 (50.8-57.7)	Hyndburn, 42.3 (39.1-45.6)
Yorkshire and The Humber	6 (29%)	1 (5%)	8 (38%)	2 (10%)	Richmondshire, 53.1 (49.7-56.5)	Barnsley, 41.2 (39.7-42.8)
East Midlands	11(28%)	4 (10%)	10 (25%)	4 (10%)	Rutland, 54.2 (51.2-57.2)	North West Leicestershire, 41.3 (38.1-44.4)
West Midlands	4 (13%)	6 (20%)	4 (13%)	8 (27%)	Lichfield, 54.5 (51.7-57.4)	Sandwell, 44.4 (43.0-45.8)
East of England	4 (9%)	28 (60%)	4 (9%)	18 (38%)	Maldon, 56.0 (53.1-59.0)	Great Yarmouth, 41.9 (37.9-45.9)
London	5 (16%)	2 (6%)	6 (19%)	4 (13%)	Kensington & Chelsea, 53.5 (49.2-57.7)	Newham, 41.4 (39.3-43.5)
South East	4 (6%)	27 (40%)	4 (6%)	31 (46%)	Surrey Heath, 56.8 (53.4-60.1)	Eastbourne, 43.8 (40.2-47.4)
South West	2 (6%)	9 (25%)	2 (6%)	11 (31%)	Stroud, 56.5 (54.3-58.6)	Plymouth, 44.9 (43.3-46.6)

1 Percentages are rounded to the nearest whole number

Source: ONS

Figure 6 DFLE for men aged 16[1]: by local authority district[2,3], 2006–08

England



1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parent's address.
2 After the April 2009 re-organisation.
3 Local authority districts include unitary authorities, London boroughs, metropolitan districts and non–metropolitan districts in England. Excludes Isles of Scilly and City of London.
4 Each quintile comprises 65 LAs with the exception of the quintile with the highest DFLE which has 64.

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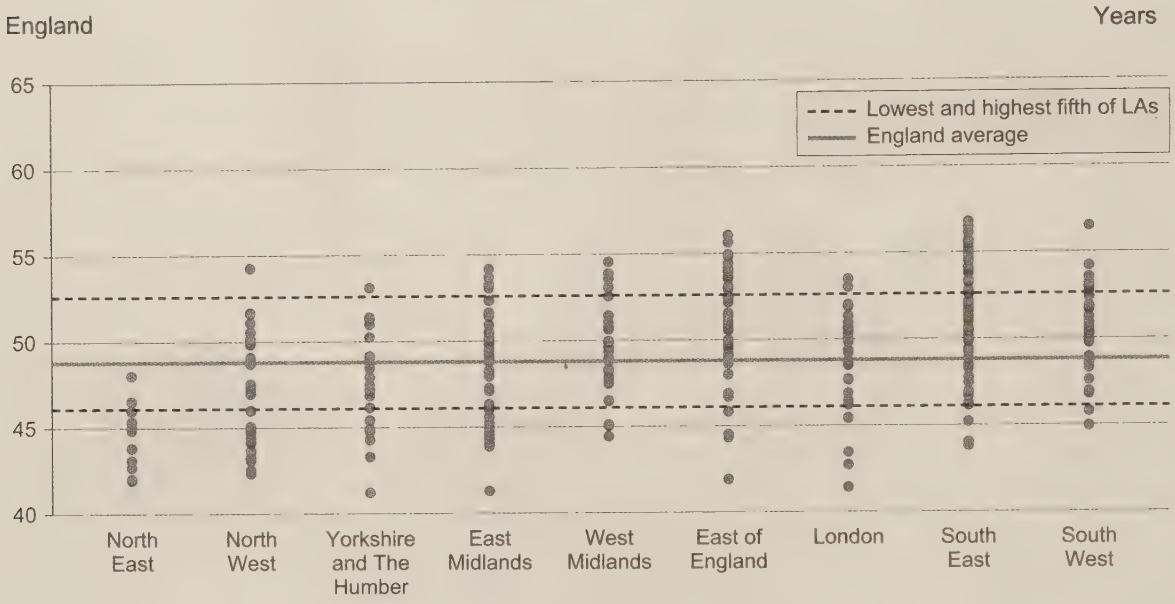
Figure 7 DFLE for men at age 16[1]: by local authority district and English region, 2006–08



1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

Source: ONS

The top and bottom ten LAs by DFLE at age 16 for men in England are shown in Table 10. The data for all LAs can be found in the associated datasets published on-line.

Table 10 LE and DFLE for men at age 16[1]: bottom and top 10 local authority districts ranked by DFLE, 2006–08

England

Years, Per cent

Local Authority	Region	LE	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	Percentage of life disability-free
Barnsley	Yorkshire and the Humber	60.5	41.2	39.7	42.8	*68.1*
North West Leicestershire	East Midlands	62.3	41.3	38.1	44.4	*66.2*
Newham	London	60.2	41.4	39.3	43.5	*68.8*
Great Yarmouth	East of England	61.7	41.9	37.9	45.9	*67.9*
Sunderland	North East	60.0	41.9	40.5	43.4	*69.9*
County Durham	North East	61.2	42.0	40.6	43.4	*68.6*
Hyndburn	North West	60.0	42.3	39.1	45.6	*70.5*
Manchester	North West	58.6	42.5	41.1	44.0	*72.6*
Gateshead	North East	60.8	42.7	41.1	44.3	*70.3*
Tower Hamlets	London	59.8	42.7	40.2	45.2	*71.4*
England		62.3	48.8	48.7	48.9	*78.3*
Runnymede	South East	64.8	55.5	52.1	58.9	*85.7*
Waverley	South East	65.2	55.5	52.9	58.2	*85.1*
Chelmsford	East of England	64.9	55.6	53.4	57.8	*85.8*
Chiltern	South East	64.6	55.6	52.6	58.6	*86.1*
Epsom and Ewell	South East	65.4	55.7	51.7	59.6	*85.2*
Maldon	East of England	63.2	56.0	53.1	59.0	*88.7*
Wycombe	South East	64.9	56.1	53.4	58.8	*86.4*
Mole Valley	South East	64.9	56.4	53.5	59.4	*87.0*
Stroud	South West	63.4	56.5	54.3	58.6	*89.1*
Surrey Heath	South East	64.4	56.8	53.4	60.1	*88.1*
Range (Surrey Health/Barnsley)		3.9	15.5	11.0	20.1	..

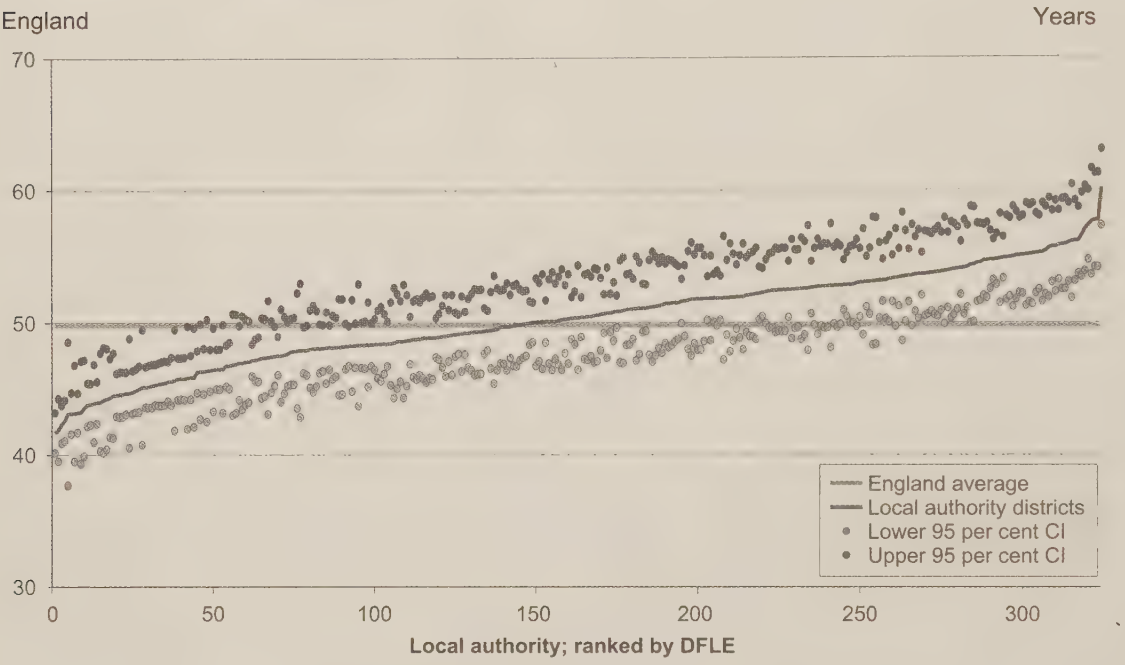
1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

Source: ONS

Women at age 16

Among women LE at age 16 varied by almost 10 years across the LAs, ranging from 63.3 years in Halton to 73.0 years in Kensington and Chelsea; however, the contrast in DFLE was more than 18 years, ranging from 41.7 years in Knowsley to 60.2 years in Tandridge (see Figure 8).

Figure 8 **DFLE for women at age 16[1]: by local authority district, 2006–08**



1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

Source: ONS

Fifty-five LAs had estimates of DFLE at age 16 that were significantly lower than the England average of 49.8 years (95 per cent CI, 49.7–49.9 years). Of these, 54 were in the lowest fifth of LAs when ranked by DFLE, representing 98 per cent of this grouping. By contrast, 81 LAs had DFLE estimates that were significantly higher than the England average; 60 of these were in the highest fifth when ranked by DFLE, representing 74 per cent of this grouping.

Summary statistics for LAs by English region for women in 2006–08 are shown in Table 11 and Figures 9 and 10.

In the North East and North West, 83 per cent and 54 per cent of LAs respectively were in the bottom fifth of all LAs in England when ranked by DFLE. None of the LAs in the North East and just three (8 per cent) in the North West appeared in the top fifth in England. The North East had no LAs with DFLE estimates significantly higher than the England average, while DFLE estimates for three (8 per cent) LAs in the North West were significantly higher.

By contrast, in the South East and South West just 4 and 8 per cent of LAs respectively were in the lowest fifth in England when ranked by DFLE and 33 per cent and 31 per cent, respectively were in the highest fifth. Three per cent of LAs in the South East and 11 per cent of LAs in the South West had estimates of DFLE that were significantly lower than the England average and 43 per cent and 39 per cent respectively had estimates of DFLE that were significantly higher than the England average.

Table 11 Summary statistics[1] of DFLE for women aged 16: by local authority districts, 2006–08

England

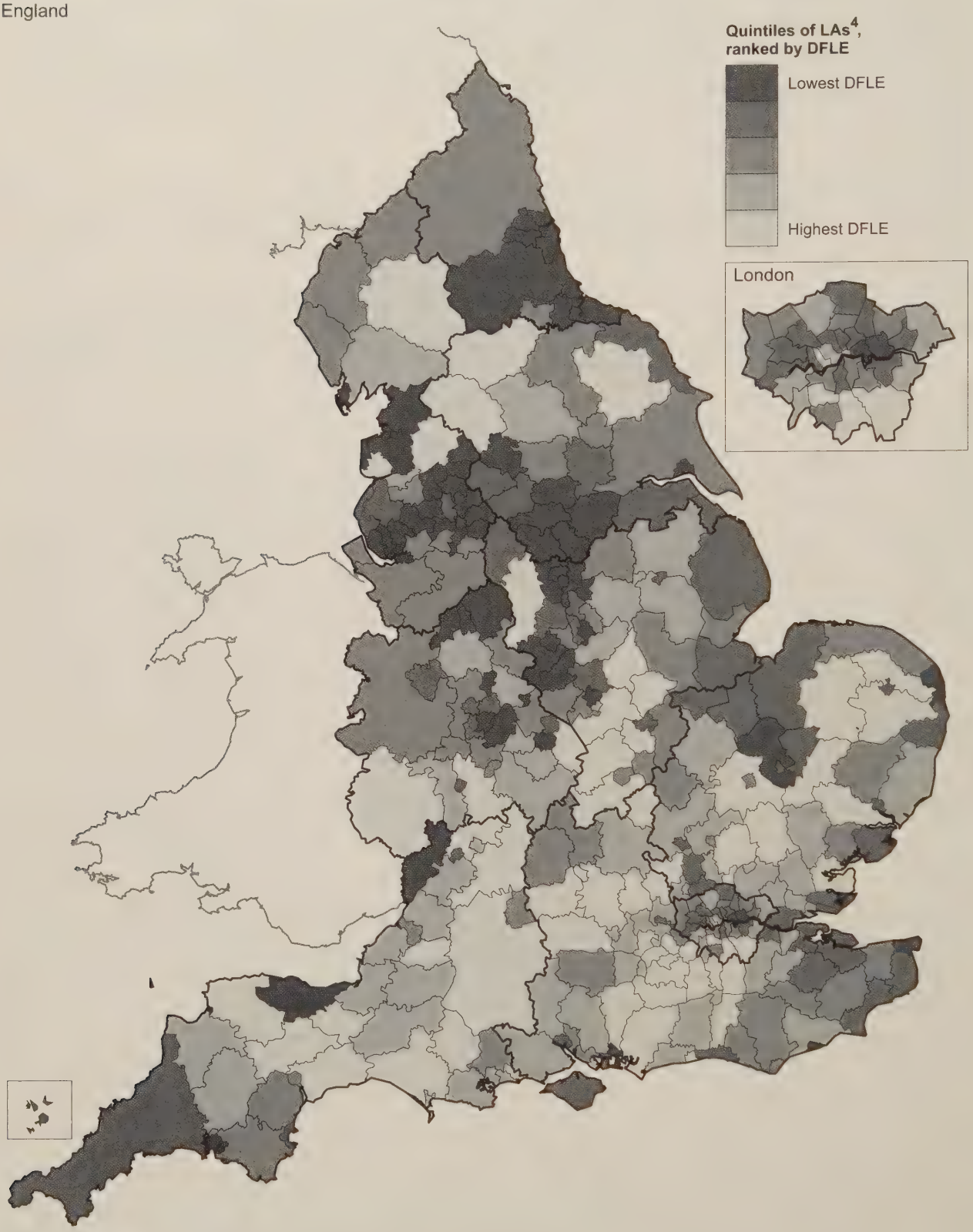
English Region	Number in lowest fifth of LAs (per cent)	Number in highest fifth of LAs (per cent)	Number significantly lower than England average (per cent)	Number significantly higher than England average (per cent)	LA with highest DFLE, years (95 per cent CI)	LA with lowest DFLE, years (95 per cent CI)
North East	10 (83%)	0	10 (83%)	0	Northumberland, 49.4 (47.9-50.9)	County Durham, 42.3 (40.9-43.7)
North West	21 (54%)	3 (8%)	18 (46%)	3 (8%)	Ribble Valley, 57.7 (54.2-61.3)	Knowsley, 41.7 (40.1-43.2)
Yorkshire and The Humber	7 (21%)	3 (14%)	7 (33%)	4 (19%)	Richmondshire, 56.1 (51.8-60.4)	Barnsley, 44.7 (43.1-46.3)
East Midlands	9 (23%)	7 (18%)	7 (18%)	6 (15%)	Rutland, 56.2 (53.1-59.2)	South Derbyshire, 44.0 (40.3-47.7)
West Midlands	8 (28%)	3 (10%)	5 (17%)	4 (13%)	Wychavon, 55.7 (52.3-59.2)	Cannock Chase, 45.7 (41.8-49.5)
East of England	1 (4%)	11 (23%)	0	14 (30%)	Babergh, 57.1 (53.9-60.3)	East Cambridgeshire, 45.8 (42.0-49.7)
London	2 (6%)	4 (13%)	2 (6%)	8 (25%)	Merton, 56.2 (53.7-58.7)	Newham, 41.9 (39.5-44.2)
South East	3 (4%)	22 (33%)	2 (3%)	29 (43%)	Tandridge, 60.2 (57.3-63.0)	Thanet, 44.5 (41.3-47.7)
South West	3 (8%)	11 (31%)	4 (11%)	14 (39%)	North Dorset, 56.6 (53.4-59.8)	West Somerset, 43.1 (37.7-48.5)

1 Percentages are rounded to the nearest whole number

Source: ONS

Figure 9 DFLE for women aged 16[1]: by local authority district[2,3], 2006–08

England



1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parent's address.
2 After the April 2009 re-organisation.
3 Local authority districts include unitary authorities, London boroughs, metropolitan districts and non–metropolitan districts in England. Excludes Isles of Scilly and City of London.
4 Each quintile comprises 65 LAs with the exception of the quintile with the highest DFLE which has 64.

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Figure 10 DFLE for women at age 16[1]: by local authority district and English region, 2006–08

1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

Source: ONS

The top and bottom 10 LAs by DFLE for women at age 16 are shown in Table 12. The data for all LAs can be found in the associated datasets published on-line.

Table 12 LE and DFLE for women at age 16[1]: bottom and top 10 local authority districts ranked by DFLE, 2006–08

England

Years, Per cent

Local Authority	Region	LE	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	Percentage of life disability-free
Knowsley	North West	63.8	41.7	40.1	43.2	*65.3*
Newham	London	64.9	41.9	39.5	44.2	*64.5*
County Durham	North East	65.0	42.3	40.9	43.7	*65.1*
Tameside	North West	64.1	42.6	41.0	44.1	*66.4*
West Somerset	South West	69.2	43.1	37.7	48.5	*62.3*
Salford	North West	63.7	43.1	41.6	44.7	*67.7*
Pendle	North West	66.2	43.1	39.5	46.8	*65.2*
Liverpool	North West	63.4	43.2	41.7	44.7	*68.1*
Barrow-in-Furness	North West	65.3	43.2	39.3	47.1	*66.2*
Burnley	North West	63.7	43.5	39.9	47.2	*68.3*
England		66.4	49.8	49.7	49.9	*75.0*
Richmondshire	Yorkshire and The Humber	67.0	56.1	51.8	60.4	*83.7*
Rutland	East Midlands	68.5	56.2	53.1	59.2	*82.0*
Merton	London	67.9	56.2	53.7	58.7	*82.8*
North Dorset	South West	68.9	56.6	53.4	59.8	*82.2*
Babergh	East of England	68.4	57.1	53.9	60.3	*83.5*
Reigate and Banstead	South East	67.2	57.4	54.7	60.0	*85.4*
Runnymede	South East	67.5	57.6	53.6	61.6	*85.3*
Surrey Heath	South East	67.8	57.7	54.2	61.3	*85.1*
Ribble Valley	North West	67.7	57.7	54.2	61.3	*85.3*
Tandridge	South East	67.6	60.2	57.3	63.0	*89.0*
Range (Tandridge/Knowsley)		3.9	18.5	15.3	21.8	..

1 Excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents address

Source: ONS

Discussion

The calculation of sub-national HEs between census years has previously been limited to area clusters or relatively large geographical scales. In contrast to the survey data used in these earlier studies, the scale and design of the APS has potential for supplying data with which to derive the DFLE metric and monitor its change at more refined geographical scales such as local authority districts. However, two important limitations in analyses using this source are apparent; firstly, the data coverage is restricted to adults aged 16 years and above; secondly, health data for health expectancy calculation is restricted to the prevalence of LLSI.

While the survey sources are not directly comparable, in both the terminology of the questions asked and in their conceptual basis for classifying disability, each produced estimates of LLSI and DFLE that were of a similar magnitude and pattern across the constituent countries of the UK. This supports the usability of the APS as an appropriate source to estimate the prevalence of LLSI and therefore DFLE in the population.

This analysis observed statistically significant differences in LLSI prevalence in both men and women between the least and most deprived areas; a ratio of 1.7 in men and 1.6 in women. An earlier analysis using General Household Survey (GHS)/GLF data produced similar ratios of the prevalence of LLSI for all ages (Smith *et al.*, 2010b); suggesting analyses of LLSI using the APS are plausible, not unduly influenced by different question terminology and survey purpose, and the scale of inequality in prevalence observed across all ages is adequately represented at ages 16 years and above.

The decline in LE and DFLE at age 16 with each successive quintile increase in deprivation was statistically significant. This supports the presence of significant health inequalities existing between intervening areas of deprivation found in previous analyses based on the Health Survey for England and the GHS/GLF (Bajekal, 2005; Smith *et al.*, 2010a,b). The increase in ratios of LE and DFLE at age 65 between areas provide further evidence that inequalities increase at older ages; the greatest inequalities in longevity and DFLE occur in older men.

While analyses by clusters of deprivation benefit from adequate levels of precision to detect policy-relevant distinctions between the relative health needs of different populations, this approach has more limited value in measuring health improvement arising from localised interventions due to the difference in need between LSOAs within deprivation clusters. Analyses at specific geographical levels provide additional statistics to monitor the effects of interventions designed to improve health outcomes in specific areas and narrow the inequality between them.

In regional analyses, there was a clear north-south divide in LE and DFLE across England; both metrics were significantly lower in the North (North East, North West, Yorkshire and The Humber) compared to the South (London, South East, South West). In comparison with the England average, LE and DFLE were also significantly lower in the North, as defined above, and on the whole significantly higher in the South. This pattern is consistent with previous estimates based on small area analyses using GHS data (Bajekal *et al.*, 2002, Bissett 2002) and Census 2001 data (ONS, 2006; Rasulo *et al.*, 2007; Olatunde *et al.*, 2010). In contrast to estimates of DFLE by area

deprivation however, there was greater inequality in LE and DFLE at age 16 for men compared with women across regions, but at age 65, the converse was observed.

The north-south health divide is further emphasised at LA level. Although precision of DFLE at this level weakens, it is striking that 58 per cent of the fifth of LAs with the lowest DFLE for men and women were from northern regions; the North East, North West and Yorkshire and The Humber and only 12 per cent were from southern regions; London, South East and South West. By contrast, in the fifth of LAs with the highest DFLE, 3 per cent were from northern regions for men and 9 per cent for women and for both sexes around 60 per cent of LAs in the highest fifth were from southern regions. These findings are again largely consistent with an earlier study based on Census 2001 data (ONS, 2006) which found a similar north-south divide in the distribution of DFLE at birth for males and females at local authority level.

With the exception of women at age 16 in the East of England, all regions contained LAs with estimates of DFLE that were significantly lower than the England average. In addition, all regions had LAs in the lowest fifth when ranked by DFLE. In each region there were also significant differences between LAs with the highest and lowest DFLE. This finding demonstrates the capacity of APS data to discriminate LAs with the lowest DFLE both within regions and in England, aiding the identification of LAs where this health outcome is in most need of improvement.

It is notable that for men and women, the scale of inequality in DFLE between the highest and lowest estimates doubled with each increasingly detailed geographical unit of analysis. For example, for males the gap in DFLE was 3.5 years between England and Wales, 7.1 years between the North East and South West and 15.6 years between Barnsley and Surrey Heath. These findings support previous analyses comparing the size of health inequality at different geographical scales and which consistently find inequality increasing with progressively finer spatial scales analysed. However, greater geographical refinement hampers comparisons because of precision limitations caused by smaller sample size; the precision of an estimate directly affects how useful it is as a measure to detect significant differences between areas and in monitoring change over time. LAs vary in size across the country and so there was no particular pattern to the precision of estimates by region.

The trade-off between precision and geographical level is a function of sample size and design; while larger samples and un-clustered designs mitigate precision constraints, they are costly to administer. The construction of large datasets through aggregations over longer periods of time is one solution; the other is the potential of the ONS Integrated Household Survey (IHS), likely to deliver sufficient data (a prospective annual sample of 450,000) in future years to make a cardinal improvement in the precision of LA estimates during the 2010s. However, both solutions have problems in terms of accrual of data and the relevance of the historic period to which the data apply. While the first annual IHS dataset, relating to 2010, will become available in June 2011, to use this data for health expectancy calculations, mortality data spanning the years 2009–11 is required and the earliest this will be available for analysis is August 2012.ONS intends to start testing the IHS during 2011, with a view to making it the data source of choice for future national and sub-national health expectancies reporting from 2012.

Limitations of this analysis

There are a number of limitations to the approach taken here. Firstly, the exclusion of the communal establishment population from the analyses will result in higher estimates of DFLE than would be the case if this population were included. However, inclusion of this population is unlikely to substantially alter the main findings, particularly as the distribution of DFLE based on APS data, largely concurs with previous analyses at birth by LA in England based on Census 2001 data (ONS, 2006). Secondly, the analysis here was restricted to men and women at age 16 and 65 rather than at birth and at age 65. Users are more familiar with estimates of health expectancies from birth than at age 16; however, children are excluded from the APS. There is the option to use alternative data sources, such as the GLF, to estimate the regional mean prevalence of LLSI for children and incorporate these as a proxy measure for the calculation of HE at birth. Alternatively, there is the option to extrapolate the prevalence data of those aged 16–19 as a plausible proxy for younger age groupings. These approaches will be tested in future analyses.

Finally, the small sample size of the APS at LA level caused estimates of DFLE at age 65 to be subject to proportionally wide margins of error. Analysis at person level rather than by sex is one solution to increase the available sample at age 65.

We intend to explore both the inclusion of the communal establishment and imputed child data as we seek to update this experimental series based on data from the APS in preparation for rebasing ONS national and sub-national estimates of health expectancies on the IHS in 2012.

Conclusions

This analysis has tested the potential of an aggregated APS dataset to provide prevalence of disability data with which to compute estimates of DFLE at a number of population breakdowns. The inequalities discovered and reported show its usefulness for DFLE measurement.

The magnitude of health inequality increases incrementally with increasing refinement of the spatial scale of analysis, concurring with previous analyses based on the Census 2001. There was a clear north-south health divide in England for men and women and the data presented here demonstrate the scale of the challenge to reduce inequality between regions, LAs and clusters of area deprivation. These data also provide clear benchmarks for area deprivation clusters and regions, but only indicative benchmarks for LA districts with which to assess the impact of policies designed to improve health outcomes and reduce health inequalities beyond the period 2006–08. Sample size limitation for some local authorities militate against the detection of policy-relevant differences from national and regional means for some authorities.

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An analysis of the socio-demographic characteristics of sole registered births and infant deaths

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Abstract

Background

Differences in birth characteristics and infant mortality rates by marital status and birth registration type reflect complex underlying factors. In particular, births registered solely by the mother are seen as a disadvantaged group. This article analyses the socio-demographic characteristics of births by registration type and parents' marital status and explores these differences for health outcomes.

Methods

Birth notifications data from the NHS Numbers for Babies system was linked to birth registration data held by the Office for National Statistics (ONS) for births occurring in 2007 and 2008 in England and Wales. This dataset was further linked to death registration data to identify infants who died before their first birthday.

Regression analysis was used to compare factors and health outcomes across marital and registration status groups. Regression models were calculated to determine the main risk factors for poor outcomes.

Results

The registration groups differed in the age of the mother at birth, the proportion of young mothers, ethnic group distribution and measures of deprived circumstances. The joint registered-different address and sole registered groups were similar in the proportion of young mothers and the deprivation indices. The groups also differed in the proportion of low birthweight and premature babies. The joint registered-different address and sole registered groups both had higher percentages of 'small for gestational age' babies compared with the within-marriage and joint registered-same address groups. The stillbirth rate was highest in the sole registered group. Both the joint registered-different address and sole registered groups had higher infant mortality rates compared with the within-marriage and joint registered-same address groups. Multivariate analysis indicated that low birthweight was a key factor in infant mortality.

Conclusions

Births registered solely by the mother were found to be a disadvantaged group but were also similar to the joint-registered group living at different addresses in their main socio-demographic characteristics and health outcomes. The joint-registered group living at the same address was similar to the within-marriage group across the same measures. This argues that, in the 21st century, the distinction between infants with 'resident' and 'non-resident' fathers is more meaningful for health outcomes than that between births inside and outside marriage.

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Introduction

The changing pattern of marriage and household structure in England and Wales in recent decades has lead to an increase in the proportion of births occurring outside marriage (Office for National Statistics, 2010a). There is evidence that good maternal health and healthy pregnancies and babies are more likely within marriage. In particular, births registered solely by the mother, generally considered to be lone parents, are considered disadvantaged (Smallwood, 2004). This article describes some key socio-demographic characteristics of births occurring in England and Wales in 2007 and 2008 across their marital status and registration type groupings. These are related to a range of health outcomes associated with both the pregnancy and the baby to determine differences across registration groups in 2011.

Box 1 Marital status/ registration type for births

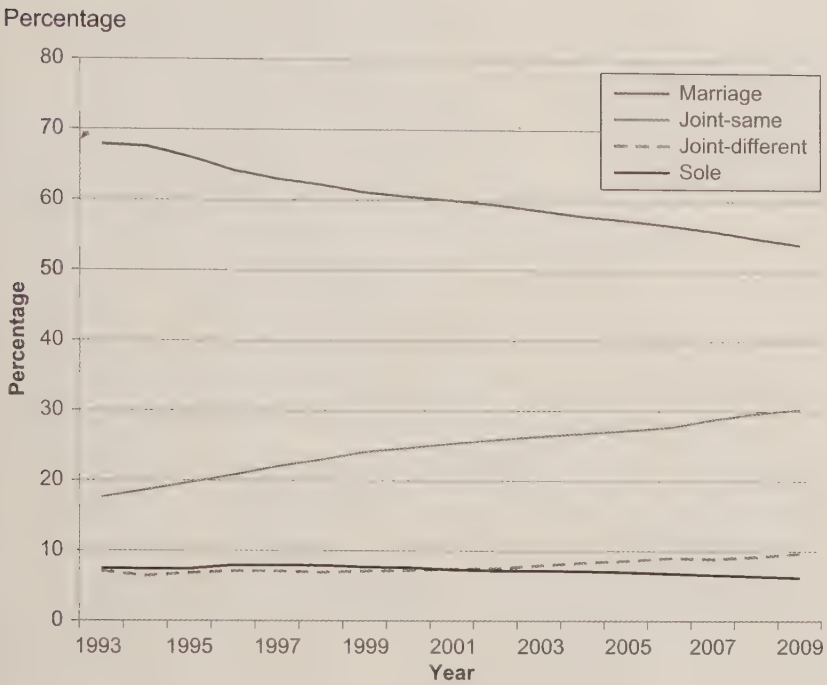
Term used in this article	Definition
Registration group	marital status / registration type group
Within-marriage	within marriage
Joint-same†	registered jointly by both parents living at the same address
Joint-different†	registered jointly by both parents living at different addresses
Sole registered	registered solely by the mother

† father must be present at registration or provide details by statutory declaration

Background

In England and Wales, registration of a birth is legally required and the marital status of the parents can be determined from information collected by the registrar (see Box 1). In the last fifty years, the number of live births registered outside marriage has increased sevenfold with 46 per cent of live births registered outside marriage in 2009 (Figure 1) (Office for National Statistics, Series DH3, 2010). Outside of marriage, the father can be recorded on the birth certificate if he is present at the registration or by statutory declaration. Since 1983, this joint registration group has distinguished parents living at the same address (generally considered a cohabitation) or those living at different addresses. About seven per cent of live births are registered solely by the mother, a proportion that has remained fairly constant. However, the composition of this group has changed over time from predominantly widows to never married young mothers (Berthoud, McKay and Rowlingson, 2004). This is now generally considered to represent a group of lone mothers who are raising their children with more disadvantages than the other registration groups.

Figure 1 **Live births by marital status / registration status type, 1993–2009**



Source: ONS

Findings from the General Lifestyle Survey show that seven per cent of households in Great Britain are lone parent households with dependent children, including widowed, divorced, separated or single parents (Shouls *et al*, 1999). It is uncertain what proportion of sole registered births are raised in lone parent households or what proportion are living in other circumstances, such as the mother remaining in her parental home. There is limited information on the characteristics of mothers who register the birth of their babies alone. However, using data from the ONS Longitudinal Study, such mothers were shown to be, on average, four years younger at the birth of their first child compared to all other mothers (Smallwood, 2004). This sample of women, born between 1955 and 1962, were less likely to come from a non-manual background compared to all mothers in the study. This was based on their own father's social class (assessed in 1971) so this group may be less representative of women registering a birth alone in the 21st century.

Further, Smallwood (2004) reported that women registering a birth alone were more likely to have had an absent father when growing up. The link between absent fathers and young, lone pregnancies has been well documented although whether the mechanism of this intergenerational pattern works through biological means (girls without fathers start first menstruation at younger ages: Moffitt *et al,* 1992), or through parenting or other mechanisms associated with deprivation (Wellings and Wadsworth, 2004) is not clear. Also, associations with non-resident fathers may vary: recent data from the Millennium Cohort Study indicated that in about a third of sole registered births, the mother reported close contact with the father (Kiernan & Smith, 2003; Smallwood, 2004). An eight-year follow-up of mothers who solely registered the birth of their baby in 1988 showed that fewer of them married within this period than for those who had jointly registered the birth (Haskey, 1999), suggesting less involved fathers. In recent years there have been attempts to change legislation to increase the number of birth registrations which hold details of the father

(Department for Work and Pensions, 2008). The aim is to promote child welfare and parental responsibility through increasing the involvement of fathers.

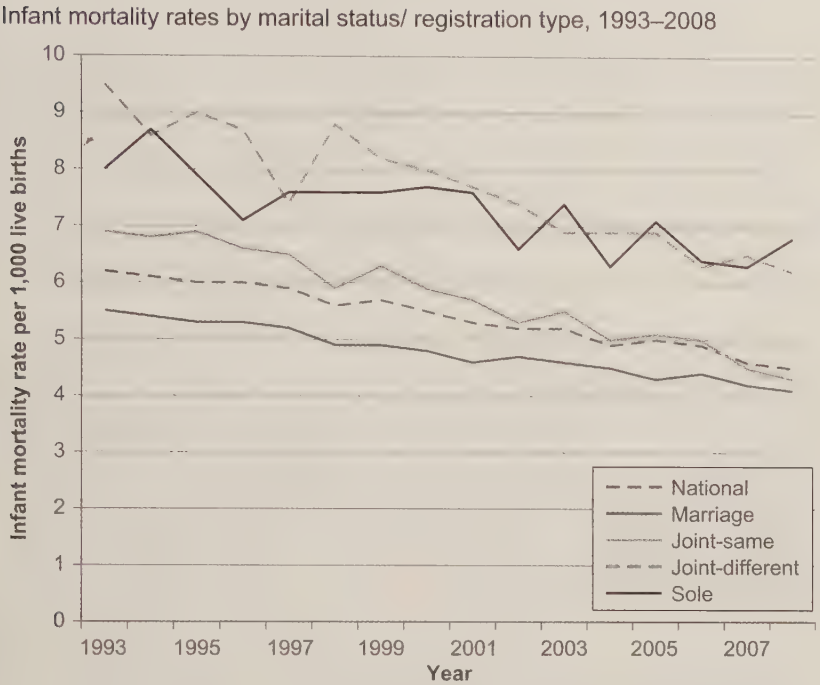
Improving maternal physical and mental health is recognised as one strategy for improving outcomes in childhood (Department of Health, 2010a). However, past surveys of households (1979–1995) have reported a range of disadvantages for lone mothers, including poorer self-perceived general health and more reported acute and chronic illness (Shouls *et al*, 1999). The health of the mother is vital to a healthy pregnancy as are her health behaviours such as smoking and drinking during the pregnancy, physical activity and maternal weight and breastfeeding (Department of Health, 2010a).

Early markers of the baby's health include low birthweight (less than 2,500 grams), prematurity (born before 37 completed weeks gestation) and being small for gestational age. Such babies are more prone to poor health outcomes, including dying before their first birthday (Perry and Lumey, 2004), living with respiratory disease (Strachan and Sheikh, 2004), and being at increased risk for coronary heart disease in mid-life (Lawlor, Ben-Schlomo and Leon, 2004). A range of characteristics are associated with low birthweight such as the mother's young age at baby's birth, mother's ethnicity, and being born outside marriage (Collingwood Bakeo, 2004). Further, babies with low birthweight are significantly more likely in the sole registered group when compared with the within-marriage and joint-registered groups combined (Dibben, Sigala and Macfarlane, 2006). There is also evidence that low birthweight is more prevalent in deprived areas (Kuh and Ben-Schlomo, 2004). There may be an interaction between mother's age at the birth of their baby and area income deprivation, with adverse effects on birthweight from area deprivation strongest for older mothers, although young mothers remain at high risk for low birthweight babies (Dibben, Sigala and Macfarlane, 2006).

Infant mortality is seen as a key measure among health outcomes. Further, there is a long established link between health inequalities and infant mortality, with most causes of infant death showing a socio-economic gradient (Oakley *et al,* 2009). A previous Department of Health Public Service Agreement (PSA) target measured health inequalities by comparing the infant mortality rate for families with fathers in routine and manual occupations with the overall infant mortality rate for families with fathers (that is, within-marriage and joint-registered births). Over time, the rate of infant mortality declined but there was little overall reduction in the gap between these groups (Department of Health, 2010b). This measure excluded the sole registered group, where father's NS-SEC was not collected. However, the infant mortality rate in the sole registered group has been consistently one of the highest of the registration groups (Figure 2).

Income also distinguishes health inequalities and lone parent families are particularly likely to be in poverty (Department of Health, 2010a). The White Paper 'Healthy Lives, Healthy People' emphasised reducing child poverty and improving the health of the poor fastest, and recognised that action taken early in development (including prenatally) is the most effective.

Figure 2 **Infant mortality rates by marital status / registration type, 1993–2008**



Source: ONS

Using data for births occurring in 2007 and 2008, this article aims to explore the socio-demographic characteristics of the registration groups, with particular attention to the sole registered group. A range of health outcomes in relation to birth (low birthweight, prematurity, and small for gestational age) and death (stillbirth, neonatal and infant mortality rates and cause of death) will be explored by registration group. Multivariate analysis of these factors will determine which characteristics, including maternal age, baby's ethnicity and area deprivation, explain any differences in health outcomes across registration group.

Methods

The analysis presented here is based on the linkage of two main data sources: ONS birth and death registration data, and birth notifications data from the NHS Numbers for Babies programme.

ONS birth and death registration data

Registration of a birth within England and Wales is legally required within 42 days of its occurrence. As well as details of the birth (date of birth, sex, single or multiple birth) additional information is collected about the parent both for the public register and for statistical purposes, such as mother's usual residence and her date of birth. Information is collected about the father if they are married or if the father is present (joint registration). Marital status and registration type is determined from birth registration records.

Stillbirths are also registered on a single certificate which records similar information as well as birthweight, gestational age and information regarding the cause of death. A stillbirth is where a

baby was born after 24 or more weeks completed gestation and did not, at any time, breathe or show other signs of life. Rates for stillbirths are reported per 1,000 total births (live and stillbirths).

Registration data on all deaths occurring in England and Wales are held by ONS. Routine linkage of birth records to the death registration records determines those babies who died before their first birthday. Neonatal deaths are those which occur under 28 days following a live birth. Postneonatal deaths are those occurring between 28 days and one year. Together they comprise infant deaths. Neonatal and infant mortality rates are reported per 1,000 live births.

Birth notifications (NN4B) data

The NHS Numbers for Babies (NN4B) electronic system for the notification of each birth allocates NHS numbers and documents key birth details not collected at birth registration. The birth must be notified to the Regional Director of Public Health within 36 hours of its occurrence by the hospital where the birth took place, or by the midwife or doctor in attendance at the birth. Birthweight is automatically linked to all birth registration records. Since 2005, ONS has linked more variables from the birth notification data to the birth registration records (see Hilder *et al*, 2007). This permits an analysis of births and infant deaths by these additional variables.

The baby's ethnic group as defined by the mother is collected on the birth notifications system. For this analysis this has been placed into broad groups: Asian (Bangladeshi, Indian, Pakistani and any other Asian background); Black (African, Caribbean and any other Black background); White (White British, White Irish and any other White background) and All others (Chinese, all mixed groups and any other ethnic group). About 9 per cent of records have 'Not stated' ethnicity.

Gestational age in completed weeks is recorded for all live births. Babies born before 37 completed weeks are considered pre-term.

Small for gestational age (SGA)

Low birthweight and prematurity are both measures of fetal development. A further measure of fetal development is being small for gestational age (SGA), which describes babies whose birthweight lies below the 10th percentile for that gestational age. Not all babies who are SGA have a pathological growth restriction but may be constitutionally small. This may explain why babies of Bangladeshi, Indian or Pakistan origin are more likely to be SGA than White British babies (Office for National Statistics, 2010b). Babies from multiple births are prone to being SGA due to additional demands on the placenta. This same report on 2007 and 2008 births showed that babies from multiple births were more than twice as likely to be SGA than singletons (20.7 per cent versus 9.4 per cent). However, a range of environmental and maternal factors also contribute to SGA.

Measures of deprivation

The Index of Multiple Deprivation (IMD) 2007 assesses deprivation across seven domains at a small area level for England (Communities and Local Government, 2007). The indices were applied in quintiles at the Lower Super Output Area (LSOA) level using the postcode of the mother's usual residence. The Health Deprivation and Disability domain does not include direct measures of birth characteristics or infant mortality but may still produce over-estimated associations between deprivation and health (see Gartner *et al*, 2008).

The Index of Multiple Deprivation for Wales (WIMD) 2008 is based on slightly different measures across eight domains at a small area level (Welsh Assembly Government, 2008) (see Box 2). The indices were applied in the same way, that is, in quintiles at the Lower Super Output Area (LSOA) level using the postcode of the mother's usual residence. The Health domain does include low birthweight as one of its indices suggesting a possible influence on the findings although in general there is little evidence for over-estimated associations (Gartner *et al*, 2008).

Both measures of deprivation involve assigning a deprivation score and a rank to each area which can be grouped into quintiles. The percentage of mothers residing in the most deprived quintile is reported for England and Wales separately.

Box 2 Measures of deprivation

IMD 2007 England	WIMD 2008 Wales
Income	Income
Employment	Employment
Health and Disability	Health
Education, Skills & Training	Education
Barriers to Housing	Housing
Crime	Crime and Fire
Living Environment	Environment
	Access to services

Cause of death

In 1986 England and Wales introduced a special certificate for neonatal deaths following the recommendations of the World Health Organisation (WHO, 1977). The certificate is designed to collect information about the mother and the baby in order to determine the earliest cause in the chain of events that led to the death of the baby. While this certificate permits more flexibility for those completing the certificates it is not possible to derive an underlying cause directly from the information recorded. Thus, ONS devised a hierarchical classification system (Dattani and Rowan, 2002) to identify a single underlying mechanism based on the Wigglesworth classification (Wigglesworth, 1980). The cause groups are organized around the likely timing of the condition or damage leading to the death in relation to birth: before, during or after. This classification system can also be applied to postneonatal deaths to enable direct comparison of neonatal and postneonatal deaths and the reporting of cause of death for infants.

Analysis

The registration groups were compared across socio-demographic characteristics and health outcomes using logistic regression analysis. All registration groups were compared to the within-marriage group, with post-estimation comparisons of the other groups. For two main health outcomes – low birthweight and infant mortality – the size of effect is reported as odds ratios with 95% confidence intervals. This is reported in two ways: unadjusted odds ratios and adjusted for potential explanatory variables. Details of the models and the variables' order of entry into the regression analysis are detailed in Annex A. The percentage of the difference explained by the addition of the explanatory variables is also reported. All analyses were carried out in Stata version 9.2 SE (StataCorp, 2007).

Results

This analysis is based on the 1.4 million births occurring in 2007 (689,120) and 2008 (708,253) which were successfully linked to their birth notifications records. This represents 99.9 per cent of live births from the registration records. This was further linked to death registration records giving a total of 6,448 infant deaths, 3,254 in 2007 and 3,194 in 2008.

Socio-demographic characteristics

Table 1 Socio-demographics characteristics for marital status/registration type groups, babies born in 2007–08

England and Wales

Mean/ Per cent

	All	Marital status/type of registration			
		Inside marriage	Joint registration		Sole registration
			same address	different address	
Live births					
All	1,397,372	771,780	408,149	126,408	91,035
%		55.2	29.2	9.1	6.5
Age of mother					
Mean age mother (years)	29.1	31.0	27.5	24.6	25.3
Per cent under 20 years	6.4	0.8	8.4	23.6	21.5
Per cent aged 35 years and over	20.3	25.4	15.8	9.6	11.6
Baby characteristics					
Per cent multiple births	3.0	3.5	2.6	2.3	2.5
Ethnicity					
White	70.4	63.3	82.9	74.1	68.9
Asian, Asian British	9.2	15.8	0.7	1.1	1.7
Black, Black British	5.1	4.9	3.0	9.0	11.3
All Others	6.5	6.7	4.8	8.2	9.4
Not Stated	8.9	9.3	8.6	7.5	8.7
Per cent non-white[1]	22.8	30.3	9.3	19.9	24.5
Deprivation					
Per cent Quintile 5 IMD2007	27.8	22.2	28.5	45.7	47.6
Per cent Quintile 5 WIMD2008	25.6	16.3	27.9	43.3	42.4

1 Of those with known ethnicity.

All differences were statistically significant at the $p<0.001$ level except for two comparisons which were not significant. Multiple births: joint-same and sole registered. WIMD: joint-different and sole registered

Source: ONS

Just over half of the live births were registered within marriage and almost a third were registered jointly by parents living at the same address, indicating that the majority of births (85 per cent) were registered in households which may be characterised as having resident fathers. Less than seven per cent of live births were registered solely by the mother (Table 1) and together with births registered jointly by parents living at different addresses, this indicates that 15 per cent of births were registered to households which may be characterised as having non-resident fathers.

Mothers in the sole registered group were younger than married mothers, but were similar to mothers in the joint-different group, with both having more than 20 per cent aged under 20 years (compared to less than 1 per cent within-marriage and 8 per cent in the joint-different group). Babies born to older mothers (aged 35 years and over) were more common in the within-marriage group compared to all other registration groups ($p<0.001$). The joint-different group had fewer older mothers than the sole registered ($p=0.05$) and joint-same ($p<0.01$) groups.

Most multiple live births occurred within marriage. The difference in percentage of multiple births in the joint-same and sole registered groups was not statistically significant.

Ethnic groups were not equally represented across the registration groups. White births were particularly represented in the joint-same group but all registration groups differed in the proportion of non-white births. However, the composition of these non-white births were different across some groups: Asian births were most likely to occur within marriage while Black births were most likely to be registered solely by the mother and also were similarly represented in the joint-different group.

The sole registered group were twice as likely to live in deprived circumstances, represented by the IMD or WIMD score, compared to the within-marriage group, as were the joint-different group. This was true whether they lived in England or Wales, but for Wales, the joint-different and sole registered groups did not differ from each other. The joint-same group was somewhat more deprived than the within-marriage group.

All the reported differences between groups were statistically significant at the $p<0.001$ level except where stated above.

Health outcomes

Table 2 Health characteristics and mortality outcomes for marital status/registration type groups, babies born in 2007–08

England and Wales

Per cent/ Rates

	All	Marital status/type of registration			
		Inside marriage	Joint registration		Sole registration
			same address	different address	
Health Characteristics for singleton births					**Per cent**
Per cent low Birthweight	5.7	5.0	5.7	7.9	8.6
Per cent under 37 weeks gestational age[1]	5.9	5.3	5.9	7.6	8.0
Per cent Small for Gestational Age (SGA)[2]	9.4	8.6	9.3	11.9	13.2
Mortality Outcomes					**Rates**
Stillbirth rate per 1,000 total births	5.1	4.8	5.2	5.2	6.6
Neonatal mortality rates per 1,000 live births	3.2	2.9	3.2	4.2	3.7
Infant mortality rates per 1,000 live births	4.6	4.2	4.5	6.4	6.3

1 Of those with known gestational age
2 SGA: birthweight below 10th percentile for each gestational age

Source: ONS

Babies from multiple births have lower birthweight on average than singleton babies, largely due to the fact that multiple births rarely go to term. Therefore, the comparison of registration groups for low birthweight, prematurity and small for gestational age was carried out for singleton births only. The joint-different and sole registered groups had higher proportions of low birthweight babies, pre-term babies and small for gestational age (SGA) babies than all other groups. All groups differed significantly at the $p<0.001$ level except for the joint-different and sole registered group on pre-term babies ($p<0.002$).

Stillbirth rates were slightly above the national rate for both joint registered groups, which were the same. The stillbirth rate was highest in the sole registered group at 6.6 per 1,000 total births compared with a rate of 4.8 in the within-marriage group. The sole registered group differed significantly from all other registration group types ($p<0.001$). The joint-same group differed from the within-marriage group ($p<0.01$) but the joint-different group did not differ significantly from either the within-marriage group or the joint-same group.

Neonatal mortality rates were higher for the joint-different (4.2 per 1,000 live births) and the sole registered group (3.7 per 1,000 live births). These groups did not differ significantly from each other but were both different from the within-marriage group ($p<0.001$). The joint-same group differed from all other groups: the joint-different (p,0.001), the sole registered ($p<0.05$) and the within-marriage ($p<0.02$).

These two non-resident father groups had similar infant mortality rates of 6.4 and 6.3 per 1,000 live births for the joint-different and sole registered respectively. Again, these groups did not differ significantly from each other but were both different from the within-marriage group and the joint-same group ($p<0.001$). This compared with the much lower rates of 4.2 and 4.5 per 1,000 live births for the within-marriage and joint-same groups respectively. These two groups were also significantly different ($p=0.01$).

Immaturity-related conditions were the most common cause of death group for all registration groups (Table 3). Congenital anomalies were also a highly represented group, especially in the within-marriage group. All other cause of death groups represented small proportions so group contrast should be made with caution. In this hierarchical classification, the proportion of deaths coded to Sudden Infant Death Syndrome (SIDS) was four times greater in the sole registered group than the within-marriage group.

Table 3 Infant mortality by ONS cause groups and registration type, babies born in 2007–08

England and Wales — Per cent

ONS Cause groups	All	Marital status/type of registration			
		Inside marriage	Joint registration		Sole registration
			same address	different address	
Congenital anomalies	29.5	35.7	24.8	20.6	22.1
Antepartum infection	2.8	2.5	2.7	3.7	3.3
Immaturity related conditions	44.6	42.3	47.2	49.4	42.2
Asphyxia, anoxia or trauma (intrapartum)	7.0	7.8	7.3	5.1	4.5
External conditions	1.5	1.0	1.4	2.6	3.5
Infections	4.1	3.2	4.2	5.5	6.6
Other specific conditions	1.2	1.3	1.3	0.9	1.1
Sudden infant deaths	5.2	2.7	6.5	7.7	11.3
Other conditions	4.2	3.6	4.7	4.6	5.4

Source: ONS

As low birthweight is a key indicator of a healthy pregnancy and the baby's healthy outcome, this was explored across registration groups after adjustment for prematurity, area deprivation, mother's age and ethnicity. As area deprivation was measured differently for England and Wales, these were analysed and reported separately (Tables 4a and 4b). The adjusted odds ratios for individual explanatory variables and all combined are reported in Annex B. For England, prematurity and area deprivation were key explanatory variables. Ethnicity, here White versus non-white, was also an important explanatory variable; the more complex pattern of results with this may reflect a number of factors including its significant correlation with area deprivation. Inclusion of these explanatory variables explained between about 25 to 50 per cent of the variance in the group comparisons for England.

The analysis of the Wales data excluded mother's age as this was not significantly associated with low birthweight. Area deprivation was the key explanatory variable.

Table 4a Unadjusted and adjusted odds ratios (OR) for low birthweight by registration group, singleton births[1]

England

		Marital status/type of registration			
		Inside marriage	Joint registration		Sole registration
			same address	different address	
Inside marriage			1.1***	1.6***	1.8***
			(1.1, 1.1)	(1.6, 1.7)	(1.7, 1.8)
Joint registration	same address	1.2***		1.4***	1.5***
		(1.2, 1.2)		(1.4, 1.5)	(1.5, 1.6)
		-53.5%			
	different address	1.4***	1.2***		1.1***
		(1.4, 1.5)	(1.1, 1.2)		(1.1, 1.1)
		24.3%	**51.5%**		
Sole registration		1.5***	1.3***	1.1***	
		(1.5, 1.6)	(1.2, 1.3)	(1.0, 1.1)	
		26.4%	**49.0%**	**38.5%**	

1 Singleton births in England with all variables present: n=1,151,553

Above the diagonal: Unadjusted odds ratios
Below the diagonal: Adjusted for prematurity, area deprivation, mother's young age at baby's birth, ethnicity (non-white)
Odds ratios, 95% confidence intervals in parentheses, percentage explained
* p≤ 0.05 ** p≤ 0.01 *** p≤ 0.001

Source: ONS

Table 4b Unadjusted and adjusted odds ratios (OR) for low birthweight by registration group, singleton births[1]

Wales

		Marital status/type of registration			
		Inside marriage	Joint registration		Sole registration
			same address	different address	
Inside marriage			1.3***	1.7***	1.7***
			(1.2, 1.4)	(1.5, 1.9)	(1.5, 1.9)
Joint registration	same address	1.4***		1.3***	1.3***
		(1.2, 1.5)		(1.2, 1.4)	(1.2, 1.5)
		-20.7%			
	different address	1.7***	1.2***		1.0
		(1.5, 1.9)	(1.1, 1.4)		(0.9, 1.2)
		3.5%	**26.4%**		
Sole registration		1.8***	1.3***		
		(1.5, 2.0)	(1.1, 1.5)		
		-5.2%	**8.6%**		

1 Singleton births in Wales with all variables present: n=67,050

Above the diagonal: Unadjusted odds ratios
Below the diagonal: Adjusted for prematurity, area deprivation, ethnicity (non-white)
Odds ratios, 95% confidence intervals in parentheses, percentage explained
* p≤ 0.05 ** p≤ 0.01 *** p≤ 0.001

Source: ONS

The joint-different and sole registered groups did not differ from each other in their rates of infant mortality. The other group differences in infant mortality were explored adjusted for key socio-demographic characteristics for England and Wales separately (Tables 5a and 5b). There were no significant registration group differences for infant deaths for the Wales data and so no further analysis was carried out. For the England data, as low birthweight and prematurity are so highly correlated, both were not included in the multivariate model: low birthweight showed the strongest association and therefore was included, so again only singleton births were analysed. Firstly, the analysis was adjusted for prematurity, low birthweight, area deprivation, young mothers and ethnicity individually (Annex C). Then the multivariate analysis included all explanatory variables except prematurity. This adjustment explained a high proportion of the variance in group differences, from about 50 to 75 per cent. Low birthweight was the key explanatory variable for group differences in infant mortality, with area deprivation and young motherhood also important factors.

Further details of the regression models whose results are given in Tables 4 and 5 are contained in Annex A.

Table 5a Unadjusted and adjusted odds ratios (OR) for infant mortality by registration group, singleton births

England

		Marital status/type of registration			
		Inside marriage	Joint registration		Sole registration
			same address	different address	
Inside marriage			1.0	1.5***	1.6***
			(0.9, 1.1)	(1.4, 1.7)	(1.5, 1.8)
	same address			1.6***	1.5***
Joint registration				(1.4, 1.7)	(1.3, 1.6)
	different address	1.1**	1.1*		1.1
		(1.0, 1.3)	(1.0, 1.2)		(0.9, 1.2)
		69.5%	**71.5%**		
Sole registration		1.1***	1.1*		
		(1.0, 1.3)	(1.0, 1.2)		
		73.4%	**75.4%**		

Above the diagonal: Unadjusted odds ratios
Below the diagonal: Adjusted for low birthweight, area deprivation, mother's young age at baby's birth, ethnicity (non-white)
Odds ratios, 95% confidence intervals in parentheses, percentage explained
* p≤ 0.05 ** p≤ 0.01 *** p≤ 0.001

Source: ONS

Table 5b Unadjusted and adjusted odds ratios (OR) for infant mortality by registration group, singleton births

Wales

	Marital status/type of registration			
	Inside marriage	Joint registration		Sole registration
		same address	different address	
Inside marriage		1.2 (0.9, 1.5)	1.3 (0.9, 1.9)	1.4 (0.9, 2.2)
Joint registration: same address			1.1 (0.8, 1.7)	1.2 (0.8, 1.9)
Joint registration: different address				1.1 (0.7, 1.8)
Sole registration				

Above the diagonal: Unadjusted odds ratios
Odds ratios, 95% confidence intervals in parentheses, percentage explained
* p≤ 0.05 ** p≤ 0.01 *** p≤ 0.001

Source: ONS

Discussion

The four marital status and registration type groups were found to differ in key socio-demographic characteristics and across the main health outcomes, and it was evident that the sole registered group was disadvantaged in these areas. The similarity between the sole registered group and the joint-different group is marked, and these two groups together, comprising less than one-fifth of all births, may be said to represent births to non-resident fathers. The main characteristics were young mothers living in deprived circumstances and with elevated risk of giving birth to babies prematurely and with low birthweight. These risks lead to a much higher infant mortality rate than babies born in the other registered groups. In particular, the stillbirth rate was much higher in the sole registered group.

The within-marriage and joint-same (or cohabitation) groups, comprising more than four-fifths of all births, may be said to correspond to births occurring in families where the father was resident. These two groups did show some differences, but were more similar to each other than to the other registration groups. The mothers were older and less likely to be living in deprived circumstances. These characteristics were associated with a reduced likelihood of giving birth to a low birthweight or premature baby. The benefits to the baby were evident in the low neonatal and infant mortality rates.

Analysis of previous years of the linked NN4B data has shown that young mothers, non-white ethnicity, births outside marriage and with high deprivation are associated with increased risk for infant mortality (Oakley et al, 2009). This analysis has clarified the inside-outside marriage distinction and provided evidence for the usefulness of keeping the four registration types separate and considering the importance of resident and non-resident fathers. The importance of the 'strength' of the parents' relationship and the context of childbearing has been emphasised in recent reports from the Millennium Cohort Study (Kiernan and Smith, 2003).

Infant mortality remains an important measure of the health of a society (DH, 2010b). Overall, infant mortality rates have been declining year on year but there are still key health inequalities evident within England and Wales. As well as adding to existing work on the socio-economic gradients for health, especially infant mortality, this article has enhanced this work by including key health measures.

Gestational age or prematurity is a powerful predictor of early survival, relevant for stillbirths and babies in their first week of life (Wilcox and Skjœrven, 1992). Beyond this first week, birthweight remains a powerful predictor of survival beyond the first birthday (Wilcox and Skjœrven, 1992). Both measures have been included.

Analysis of death certificates as ONS cause of death groups confirmed that immaturity-related conditions are the main cause of infant death. While the data available from birth registration cannot show conclusively all the relevant factors for healthy outcome at birth, some important statistical associations of factors across these groups have been demonstrated here using the linked data.

Low birthweight has shown itself as a key independent determinant of infant mortality. Other factors also associated with infant mortality may have both a direct effect on the risk of death, or indirect links through the consequences of low birthweight. For example, area deprivation is associated with health behaviours such as smoking and drinking, which in turn impact on fetal development, which increase the likelihood of premature and low birthweight babies (Perry and Lumey, 2004). Findings reported from the Millennium Cohort Study have shown that smoking during pregnancy, maternal weight and engagement in antenatal care vary by ethnic group (Gray *et al,* 2009), and other studies have reported that women's obesity varies with age, educational level, income level and ethnic group (Higgins and Dale, 2010). Fertility rates have also been shown to vary by ethnic group and migration history, and across these by mother's age at birth and pattern of childbearing (Dubuc and Haskey, 2010).

It is evident that pathways are complex and inter-related: for example, ethnic group and engagement in antenatal care may be associated with area deprivation, which is one pathway impacting on the mother's health and ultimately the baby's healthy outcome. The association between young mothers and the registration type groups of sole registered and joint-different may reflect a lack of planning in terms of relationships and pregnancy.

Unplanned pregnancies are associated with poorer outcomes for mother and baby and they are more common in the sole registered group (Graham *et al*, 2007), although the two joint-registered groups were not differentiated here. Congenital anomalies were also a highly represented cause of death group, especially in the within-marriage group, in part explained by certain characteristics of

the mothers, namely age and ethnicity. Congenital anomalies are generally more prevalent in babies born to older mothers and there was a greater proportion of older mothers in the within-marriage group. Also, most Asian births were within-marriage and other reports on this dataset (Office for National Statistics, 2010b) have shown that congenital anomalies were highest in the Asian ethnic group.

Limitations of the analysis

This analysis has examined all births occurring in England and Wales in 2007 and 2008 and through linkage with other data sources has included variables not previously routinely available, such as ethnicity and gestational age. However, there was a limited range of possible factors relevant for understanding the characteristics of the registration groups and their health risks and outcomes. For example, there are no behavioural measures, such as whether the mothers smoked during pregnancy, a key determinant of low birthweight (Perry and Lumey, 2004). Other studies have shown high rates of smoking in the sole registered group (Graham *et al,* 2007).

Splitting England and Wales for analysis which included area deprivation showed different findings for the two countries. Further analysis is needed to establish whether the registration group differences and the explanatory variables do indeed show different patterns in Wales, or whether the much smaller numbers in Wales did not provide enough power to show the same patterns as England. Further analysis using more aggregated years of linked data for Wales may add clarification.

Ethnicity is an important factor but there is debate about classifying this social construct. It is generally self-determined but here we have the mother's report of the baby's ethnicity. Further, about 9 per cent of records did not have a stated ethnic group. Analysis is underway to determine the impact of missing ethnicity, although no marked differences were found across registration type groups. Further, we have used the broad ethnic group classification here and there may be key differences between the sub-groups. Birthweight varies by ethnic group and thus what may be considered 'normal' for one ethnic group may differ for another. Standard definitions for low birthweight and Small for Gestational Age were applied to all women and any variation by ethnic group was not taken into account.

Area deprivation measures were correlated with a number of the variables used in this analysis. Further analysis could use the separate deprivation domains, such as Income and Environment, to assess the association with deprivation. In particular, removing the Health domain from the Wales analysis would remove the correlation with low birthweight which is included in this domain.

Conclusions

The findings reported here have described the different birth registration groups highlighting their differences and similarities, with a particular emphasis on measures which are disadvantageous to babies and their survival. While there is clear evidence that the sole registered group is a disadvantaged group, they have been shown to be similar to the joint-different group, an equally disadvantaged group. This would argue that when combining the registration groups for demographic and health statistics a different distinction in terms of resident versus non-resident fathers would be more meaningful.

The results of the logistic regression confirm the importance of a range of factors, most of them related to socioeconomic deprivation, for premature birth, low birthweight and infant mortality. While the relationships between these influences are complex, there is strong evidence for the role of low birthweight as a common pathway in their effect on infant mortality.

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Annex A

Table A1a Variables included in the analyses for low birthweight

Variable	Classification	Stage of Modelling
Outcome variable: low birthweight	Birthweight less than 2,500g	-
Prematurity	Less than 37 weeks completed gestation	1
Deprivation	Most deprived quintile	2
Mother's age at baby's birth	Under 20 years	3
Ethnicity	Non-white	4

Source: ONS

Table A1b Variables included in the analyses for infant death

Variable	Classification	Stage of Modelling
Outcome variable: infant death	Baby died before first birthday	-
Prematurity	Less than 37 weeks completed gestation	(excluded)
Low birthweight	Birthweight less than 2,500g	1
Deprivation	Most deprived quintile	2
Mother's age at baby's birth	Under 20 years	3
Ethnicity	Non-white	4

Source: ONS

Annex B

Table B1 Unadjusted and adjusted odds ratios (OR) for low birthweight by registration group, singleton births

England

	Marital status/type of registration					
	Inside marriage vs			Joint same	Sole registered	
	Joint same	Joint different	Sole registered	Joint different	Joint same	Joint different
Unadjusted	1.1***	1.6***	1.8***	1.4***	1.5***	1.1***
	(1.1, 1.1)	(1.6, 1.7)	(1.7, 1.8)	(1.4, 1.5)	(1.5, 1.6)	(1.1, 1.1)
Prematurity	1.1***	1.5***	1.6***	1.3***	1.5***	1.1***
	(1.1, 1.1)	(1.4, 1.5)	(1.5, 1.7)	(1.3, 1.4)	(1.4, 1.5)	(1.0, 1.1)
	33.1%	**20.5%**	**17.9%**	**16.0%**	**13.6%**	**3.5%**
Area deprivation	1.1***	1.5***	1.6***	1.3***	1.5***	1.1***
	(1.1, 1.1)	(1.4, 1.5)	(1.6, 1.7)	(1.3, 1.4)	(1.4, 1.5)	(1.0, 1.1)
	19.1%	**17.9%**	**16.5%**	**17.4%**	**15.7%**	**8.4%**
Mum aged under 20 years	1.1***	1.6***	1.7***	1.4***	1.5***	1.1***
	(1.1, 1.1)	(1.5, 1.6)	(1.7, 1.8)	(1.4, 1.4)	(1.5, 1.6)	(1.1, 1.1)
	7.5%	**6.8%**	**4.4%**	**5.1%**	**3.5%**	**-3.1%**
Ethnicity (non-white)	1.3***	1.7***	1.8***	1.3***	1.4***	1.1***
	(1.3, 1.3)	(1.7, 1.8)	(1.8, 1.9)	(1.3, 1.4)	(1.4, 1.5)	(1.0, 1.1)
	-97.7%	**-12.0%**	**-5.8%**	**18.0%**	**20.3%**	**29.7%**
All explanatory variables	1.2***	1.4***	1.5***	1.2***	1.3***	1.1*
	(1.2, 1.2)	(1.4, 1.5)	(1.5, 1.6)	(1.1, 1.2)	(1.2, 1.3)	(1.0, 1.1)
	-53.5%	**24.3%**	**26.4%**	**51.5%**	**49.0%**	**38.5%**

Odds ratios, 95% confidence intervals in parentheses, percentage explained
* p≤ 0.05 ** p≤ 0.01 *** p≤ 0.001

Source: ONS

Annex B

Table B2 Unadjusted and adjusted odds ratios (OR) for low birthweight by registration group, singleton births

Wales

	Marital status/type of registration					
	Inside marriage vs			Joint same	Sole registered	
	Joint same	Joint different	Sole registered	Joint different	Joint same	Joint different
Unadjusted	1.3***	1.7***	1.7***	1.3***	1.3***	1.0
	(1.2, 1.4)	(1.5, 1.9)	(1.5, 1.9)	(1.2, 1.4)	(1.2, 1.5)	(0.9, 1.2)
Prematurity	1.3***	1.7***	1.8***	1.3***	1.4***	
	(1.2, 1.4)	(1.5, 1.9)	(1.6, 2.1)	(1.1, 1.4)	(1.2, 1.6)	
	-6.3%	**1.7%**	**-10.8%**	**9.3%**	**-14.9%**	
Area deprivation	1.3***	1.5***	1.6***	1.2***	1.3***	
	(1.2, 1.3)	(1.4, 1.7)	(1.4, 1.8)	(1.1, 1.4)	(1.1, 1.4)	
	13.3%	**14.9%**	**13.9%**	**16.4%**	**14.5%**	
Ethnicity (non-white)	1.4***	1.7***	1.7***	1.3***	1.3***	
	(1.3, 1.5)	(1.6, 1.9)	(1.6, 2.0)	(1.2, 1.4)	(1.1, 1.5)	
	-19.9%	**-8.7%**	**-5.2%**	**2.0%**	**8.0%**	
All explanatory variables	1.4***	1.7***	1.8***	1.2***	1.3***	
	(1.2, 1.5)	(1.5, 1.9)	(1.5, 2.0)	(1.1, 1.4)	(1.1, 1.5)	
	-20.7%	**3.5%**	**-5.2%**	**26.4%**	**8.6%**	

Odds ratios, 95% confidence intervals in parentheses, percentage explained
* p≤ 0.05 ** p≤ 0.01 *** p≤ 0.001

Source: ONS

Annex C

Table C1 Unadjusted and adjusted odds ratios (OR) for infant deaths by registration group, singleton births

England

	Marital status/type of registration					
	Inside marriage vs			Joint same	Sole registered	
	Joint same	Joint different	Sole registered	Joint different	Joint same	Joint different
Unadjusted	1.0	1.5***	1.6***	1.6***	1.5***	1.1
	(0.9, 1.1)	(1.4, 1.7)	(1.5, 1.8)	(1.4, 1.7)	(1.3, 1.6)	(0.9, 1.2)
Prematurity		1.3***	1.3***	1.3***	1.3***	
		(1.2, 1.4)	(1.2, 1.4)	(1.2, 1.4)	(1.2, 1.5)	
		44.7%	**46.0%**	**33.9%**	**36.6%**	
Low birthweight†		1.2***	1.2***	1.2***	1.2***	
		(1.1, 1.3)	(1.1, 1.3)	(1.1, 1.4)	(1.1, 1.4)	
		57.6%	**61.5%**	**46.9%**	**52.3%**	
Area deprivation†		1.4***	1.4***	1.4***	1.4***	
		(1.3, 1.5)	(1.3, 1.6)	(1.3, 1.5)	(1.3, 1.6)	
		25.0%	**24.1%**	**19.5%**	**19.2%**	
Mum aged under 20 years†		1.4***	1.5***	1.4***	1.5***	
		(1.3, 1.6)	(1.4, 1.7)	(1.3, 1.6)	(1.4, 1.7)	
		19.0%	**15.4%**	**13.5%**	**10.3%**	
Ethnicity (non-white)†		1.6***	1.7***	1.4***	1.4***	
		(1.5, 1.8)	(1.5, 1.9)	(1.3, 1.5)	(1.3, 1.6)	
		-14.5%	**-7.1%**	**18.4%**	**22.6%**	
Four explanatory variables marked†		1.1**	1.1***	1.1*	1.1*	
		(1.0, 1.3)	(1.0, 1.3)	(1.0, 1.2)	(1.0, 1.2)	
		69.5%	**73.4%**	**71.5%**	**75.4%**	

Odds ratios, 95% confidence intervals in parentheses, percentage explained
* p≤ 0.05 ** p≤ 0.01 *** p≤ 0.001

Source: ONS

Notes to Tables

United Kingdom
The United Kingdom comprises England, Wales, Scotland and Northern Ireland. The Channel Islands and the Isle of Man are not part of the United Kingdom.

Population
The estimated and projected resident population of an area includes all people who usually live there, whatever their nationality. Members of HM and US Armed Forces in the United Kingdom are included on a residential basis wherever possible. HM Forces stationed outside the United Kingdom are not included. Students are taken to be resident at their term time addresses. Further information can be found at: www.statistics.gov.uk/popest

Live births
For England and Wales, figures relate to the number of births occurring in a period; for Scotland and Northern Ireland, figures relate to births registered in a period. By law, births must be registered within 42 days in England and Wales, within 21 days in Scotland, and within 42 days in Northern Ireland. In England and Wales, where a birth is registered later than the legal time period, and too late to be included in the count for the year of occurrence, it will be included in the count for the following year.

The age-specific fertility rate (ASFR), is the number of births per 1,000 women in the stated age group. The total fertility rate (TFR), is the average number of children that a group of women would have if they experienced the ASFRs for a particular year throughout their childbearing lives. The TFR reflects the current intensity of childbearing and the rate at which the population replaces itself. The TFR is a synthetic measure since ASFRs do not normally remain stable during the childbearing life span of a woman.

Period expectation of life
The life tables on which these expectations are based use death rates for the given period to describe mortality levels for each year. Each individual year shown is based on a three-year period, so that for instance 1986 represents 1985–87. Further information can be found at: www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459

Deaths
Figures for England and Wales represent the number of deaths registered in each year up to 1992, and the number of deaths occurring each year from 1993 to 2001. Figures for 2002 onwards relate to registrations. All infant and neonatal mortality data represents registrations. All figures for Scotland and Northern Ireland relate to the number of deaths registered in each year.

Coding cause of death
Between 1 January 1984 and 31 December 1992, ONS applied its own interpretation of the International Classification of Diseases (ICD) Section Rule 3 in the coding of deaths where terminal events and other 'modes of dying' such as cardiac arrest, cardiac failure, certain thrombembolic disorders, and unspecified pneumonia and bronchopneumonia, were stated by the certifier to be the underlying cause of death and other major pathology appeared on the certificate. In these cases ONS Rule 3 allowed the terminal event to be considered a direct sequel to the major pathology and that primary condition was selected as the underlying cause of death. Prior to 1984 and between 1 January 1993 and 31 December 2000, such certificates were coded to the terminal event. ONS also introduced automated coding of cause of death in 1993, which may also affect comparisons of deaths by cause from 1993. Further details can be found in the annual volumes *Mortality statistics: Cause 1984*, Series DH2 no. 11, and *Mortality statistics: Cause 1993 (revised) and 1994*, Series DH2 no. 21.

From 1 January 2001, under ICD–10, Rule 3 was again changed – for details see the article in *Health Statistics Quarterly* 13. This resulted in a fall in the death rates from respiratory diseases, notably pneumonia, and consequently slight rises in the rates for other causes (for example strokes). For details of the major changes between ICD–9 and ICD–10, see the articles in *Health Statistics Quarterly* 08, 13 and 14.

Age-standardised mortality
Directly age-standardised rates make allowances for changes in the age structure of the population. The age-standardised rate for a particular condition is that which would have occurred if the observed age-specific rates for the condition had applied in a given standard population. Table 2.2 uses the European Standard Population. This is a hypothetical population standard which is the same for both males and females allowing standardised rates to be compared over time and between sexes.

Abortions
Figures relate to numbers occurring in a period.

Marriages and divorces
Marriages are tabulated according to date of solemnisation. Divorces are tabulated according to date of decree absolute. The term 'divorces' includes decrees of nullity. The fact that a marriage or divorce has taken place in England, Wales, Scotland or Northern Ireland does not mean either of the parties is resident there.

Civil Partnerships
The Civil Partnership Act 2004 came into force on 5 December 2005 in the UK, the first day couples could give notice of their intention to form a civil partnership. The first day that couples could formally form a partnership was 19 December 2005 in Northern Ireland, 20 December 2005 in Scotland and 21 December 2005 in England and Wales. (18 civil partnerships were formed under special arrangements before these dates. These are included in the figures for England and Wales).

Civil partnerships are tabulated according to date of formation and area of occurrence. The fact that a civil partnership has taken place in England, Wales, Scotland or Northern Ireland does not necessarily mean either of the parties is resident there.

International Migration
The UN recommends the following definition of an international long-term migrant:
An *international long-term migrant* is defined as a person who moves to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country of usual residence. Long-Term International Migration estimates are compiled from several main sources of migration data:
- The richest source of information on international migrants comes from the International Passenger Survey (IPS), which is a sample survey of passengers arriving at, and departing from, the main United Kingdom air and sea ports and Channel Tunnel. This survey provides migration estimates based on respondents' *intended* length of stay in the UK or abroad and excludes most persons seeking asylum and some dependants of such asylum seekers.
- Two adjustments are made to account for people who do not realise their intended length of stay on arrival. First, visitor data from the IPS are used to estimate 'visitor switchers': those people who initially come to or leave the UK for a short period but subsequently stay for a year or longer. Second, people who intend to be migrants, but who in reality stay in the UK or abroad for less than a year ('migrant switchers'), are estimated from IPS migrant data.
- Home Office data on asylum seekers and their dependants.
- From 2008 onwards, data from the Northern Ireland Statistics and Research Agency is used to estimate international migration to and from Northern Ireland.
- For 1991-2007, estimates of migration between the UK and the Irish Republic are estimated using information from the Irish Quarterly National Household Survey and the National Health Service Central Register. From 2008, the IPS has been used to measure these flows.

Further information on long-term migration estimates can be found at www.statistics.gov.uk/StatBase/Product.asp?vlnk=507

Internal Migration
Figures in Table 8.1 are based on the movement of NHS doctors' patients between former Health Authorities (HAs) in England and Wales, and Area Health Boards in Scotland and Northern Ireland. Yearly and quarterly figures have been adjusted to take account of differences in recorded cross-border flows between England and Wales, Scotland and Northern Ireland.

Estimates of internal migration are based on the date of acceptance of the new patient by the HA and a one month time lag is assumed. It has been established that NHSCR data under-report the migration of males aged between 16 and 36. See: www.statistics.gov.uk/downloads/theme_population/Revising_Internal_Migration_Estimates.pdf

EU Enlargement
The coverage of European countries in Table 1.1 has been updated to reflect the enlargement of the EU to 27 member countries (EU27). On 1 May 2004, 10 new member countries were added: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia. On 1 January 2007 a further 2 countries were added: Bulgaria and Romania.

Sources
Figures for Scotland and Northern Ireland have been provided by National Records of Scotland and the Northern Ireland Statistics and Research Agency respectively. The International Passenger Survey (see International migration) is conducted by ONS.

Calculating quarterly rates
Quarterly rates are calculated using adjustments which take into account the number of days in the month/year. The denominators used for calculating quarterly rates have been produced from mid-year population estimates and projections.

Rounding
All figures are rounded independently; constituent parts may not add to totals. Generally numbers and rates per 1,000 population are rounded to one decimal place (e.g. 123.4); where appropriate, for small figures (below 10.0), two decimal places are given (e.g. 7.62). Figures which are provisional or estimated are given in less detail (e.g. 123 or 7.6 respectively) if their reliability does not justify giving the standard amount of detail. Where figures need to be treated with particular caution, an explanation is given as a footnote.

Latest figures
Figures for the latest quarters and years may be provisional, these will be updated in final figures when data is available. Where figures are not yet available, cells are left blank.

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Symbols

..	not available	-	nil or less than half the final digit shown
:	not applicable	p	provisional

Table 1.1 Population and vital rates: international

Selected Countries

Numbers (thousands)/Rates per thousand

Year	United Kingdom	Austria	Belgium	Bulgaria	Cyprus[1]	Czech Republic	Denmark[2,3]	Estonia	Finland[3,4]	France[5]	Germany[6]	Greece[7]	Hungary
Population (thousands)													
2001	59113	8042	10287	7913	701[20]	10224	5359	1364	5188	59476	82340	10950	10188
2002	59319	8082	10333	7869	710[20]	10201	5374	1359	5201	59894	82482	10988	10159
2003	59552	8118	10372	7824	721[20]	10202	5387	1354	5213	60304	82520	11024	10130
2004	59842	8169	10417	7781	737[20]	10207	5401	1349	5228	60734	82501	11062	10107
2005	60235	8225	10473	7740	758[20]	10234	5416	1346	5246	61181	82464	11104	10087
2006	60584	8268	10542	7699	771[20]	10267	5435	1344	5266	61597	82366	11149	10071
2007	60986	8301	10623	7660	785[20]	10323	5457	1342	5289	63825	82263	11193	10056
2008	61398	8337	10667[J]	7623	793[20,P]	10430	5489	1341	5313	64186	82110	11237	10038
2009	61792	8363	10753[J,P]	7585	800[20,P]	10491[P]	5519	1340[P]	5311	64541	81902	11283	10023
2010	..	8375[J]	10840[J,P]	7534[P]	804[20,P]	10517[P]	5535	1340[J,P]	5351[J]	62917[P]	81802[J,P]	11305[J]	10004[P]
Population changes (per 1,000 per annum)													
2001-02	3.5	5	4.5	-5.6	12.8	-2.2	2.8	-3.7	2.5	7	1.7	3.5	-2.8
2002-03	3.9	4.5	3.8	-5.7	15.5	0.1	2.4	-3.7	2.3	6.8	0.5	3.3	-2.9
2003-04	4.9	6.3	4.3	-5.5	22.2	0.5	2.6	-3.7	2.9	7.1	-0.2	3.4	-2.3
2004-05	6.6	6.9	5.4	-5.3	28.5	2.6	2.8	-2.2	3.4	7.4	-0.4	3.8	-2
2005-06	5.8	5.2	6.6	-5.3	17.2	3.2	3.5	-1.5	3.8	6.8	-1.2	4.1	-1.6
2006-07	6.6	4	7.7	-5.1	18.2	5.5	4	-1.5	4.4	36.2	-1.3	3.9	-1.5
2007-08	6.8	4.3	4.1	-4.8	10.2	10.4	5.9	-0.7	4.5	5.7	-1.9	3.9	-1.8
2008-09	6.4	3.1	8.1	-5	8.8	5.8	5.5	-0.7	-0.4	5.5	-2.5	4.1	-1.5
2009-10	..	1.4	8.1	-6.7	5	2.5	2.9	0	7.5	-25.2	-1.2	1.9	-1.9
Live birth rate (per 1,000 population per annum)													
2001	11.3	9.4	11.1	8.6	11.6	8.9	12.2	9.3	10.8	13	8.9	9.3	9.5
2002	11.3	9.7	10.8	8.5	11.1	9.6	11.9	9.6	10.7	12.7	8.7	9.5	9.5
2003	11.7	9.5	10.8	8.6	11.2	9.2	12	9.6	10.9	12.6	8.6	9.5	9.3
2004	12	9.7	11.1	9	11.3	9.6	12	10.4	11	12.6	8.6	9.6	9.4
2005	12	9.5	11.3	9.2	10.9	10	11.9	10.7	11	12.7	8.3	9.7	9.7
2006	12.4	9.4	11.5	9.6	11.3	10.3	11.9	11.1	11.2	12.9	8.2	10	9.9
2007	12.7	9.2	11.4	9.8	10.9	11.1	11.7	11.8	11.1	12.8	8.3	10	9.7
2008	12.9	9.3	12	10.2	11.6	11.5	11.8	12	11.2	12.9	8.3	10.5	9.9
2009	12.8	9.1	11.8[P]	10.7	12	11.3	11.4	11.8	11.3	12.8	8.1	10.5[P]	9.6
2010	..	9.3	..	10	..	11.1	11.4	11.8	11.4	..	..	..	9
Death rate (per 1,000 population per annum)													
2001	10.2	9.3	10.1	14.2	6.9	10.5	10.9	13.6	9.4	8.9	10.1	9.4	13
2002	10.2	9.4	10.2	14.3	7.3	10.6	10.9	13.5	9.5	8.9	10.2	9.5	13.1
2003	10.3	9.5	10.3	14.3	7.2	10.9	10.7	13.4	9.4	9.2	10.3	9.6	13.4
2004	9.7	9.1	9.8	14.2	7.1	10.5	10.3	13.1	9.1	8.4	9.9	9.5	13.1
2005	9.7	9.1	9.9	14.6	7.2	10.5	10.1	12.9	9.1	8.6	10.1	9.5	13.5
2006	9.4	9	9.6	14.7	6.7	10.2	10.2	12.9	9.1	8.4	10	9.5	13.1
2007	9.4	9	9.5	14.8	6.9	10.1	10.2	13	9.3	8.3	10.1	9.8	13.2
2008	9.4	9	9.8	14.5	6.5	10.1	9.9	12.4	9.2	8.5	10.3	9.6	13
2009	9.1	9.3	9.7[P]	14.2	6.5	10.2	9.9	12	9.3	8.5	10.4	9.6[P]	13
2010	..	9	..	14.6	..	10.2	9.8	11.8	9.5	..	..	..	13

Note: Data for all countries except the UK has been taken from the United Nations Monthly Bulletin of Statistics at http://unstats.un.org/unsd/mbs/app/DataSearchTable.aspx

In a very small number of cases, particulary for the latest year, European data has been obtained from Eurostat as it is not yet available from the UN Monthly Bulletin of Statistics. All 2009 birth and death rates have been obtained from Eurostat. Eurostat data can be found at: http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database

Estimated population is mid-year throughout, unless otherwise indicated.

The UK figures in this table include the revised 2002-2008 population estimates which were published on 13 May 2010.

For historical data for the United Kingdom please see Table 1.2 at: www.statistics.gov.uk/downloads/theme_health/Pop-national12.xls

For historical data for all other countries prior to 1997 please see Table 1 at the link: http://unstats.un.org/unsd/demographic/products/dyb/dybhist.htm

This table was updated on 28 April 2011. Consequently it does not include any new or revised figures added to the sources after this date.

Table 1.1 continued **Population and vital rates: international**

Selected Countries

Numbers (thousands)/Rates per thousand

Year	Republic Irish	Italy	Latvia	Lithuania	Luxembourg	Malta[8]	Netherlands	Poland[9]	Portugal[10]	Romania	Slovakia	Slovenia
Population (thousands)												
2001	3,847[21]	56977	2355	3481	442	385	16046	38251	10293	22408	5380	1992
2002	3,920[21]	57157	2339	3469	446	387	16149	38232	10368	21795	5379	1996
2003	3,979[21]	57605	2325	3454	452	399	16225	38195	10441	21734	5379	1997
2004	4,044[21]	58175	2313	3436	458	401	16282	38180	10502	21673	5383	1997
2005	4,131[21]	58607	2301	3414	465	404	16320	38161	10549	21624	5387	2001
2006	4,235[21]	58941	2288	3394	473	406	16346	38132	10584	21584	5391	2009
2007	4,339[21,P]	59375	2276	3376	480	409	16382	38116	10608	21538	5398	2019
2008	4,422[21,P]	59832	2266	3358	489	412	16446	38116[J]	10622	21504	5407	2023
2009	4,459[21,P]	60187[P]	2255	3339[P]	498	413	16530	38153[P]	10632	21470	5418	2042
2010	4,471[21,P]	60340[J]	2240[P]	3329[J]	502[J,P]	413	16603[P]	38194[P]	10638[J,P]	21433[P]	5430[P]	2049[P]
Population changes (per 1,000 per annum)												
2001-02	19	3.2	-6.8	-3.4	9	5.2	6.4	-0.5	7.3	-27.4	-0.2	2
2002-03	15.1	7.8	-6	-4.3	13.5	31	4.7	-1	7	-2.8	0	0.5
2003-04	16.3	9.9	-5.2	-5.2	13.3	5	3.5	-0.4	5.8	-2.8	0.7	0
2004-05	21.5	7.4	-5.2	-6.4	15.3	7.5	2.3	-0.5	4.5	-2.3	0.7	2
2005-06	25.2	5.7	-5.6	-5.9	17.2	5	1.6	-0.8	3.3	-1.8	0.7	4
2006-07	24.6	7.4	-5.2	-5.3	14.8	7.4	2.2	-0.4	2.3	-2.1	1.3	5
2007-08	19.1	7.7	-4.4	-5.3	18.8	7.3	3.9	0	1.3	-1.6	1.7	2
2008-09	8.4	5.9	-4.9	-5.7	18.4	2.4	5.1	1	0.9	-1.6	2	9.4
2009-10	2.7	2.5	-6.7	-3	8	0	4.4	1.1	0.6	-1.7	2.2	3.4
Live birth rate (per 1,000 population per annum)												
2001	15.1	9.2	8.3	9.1	12.4	10.1	12.6	9.6	11	9.8	9.5	8.8
2002	15.4	9.4	8.6	8.7	12	10.1	12.5	9.3	11	9.7	9.5	8.8
2003	15.5	9.4	9	8.9	11.7	10.2	12.3	9.2	10.8	9.8	9.6	8.7
2004	15.3	9.7	8.8	8.9	11.9	9.7	11.9	9.3	10.4	10	10	9
2005	14.9	9.5	9.3	8.9	11.5	9.6	11.5	9.5	10.4	10.2	10.1	9.1
2006	15.2	9.5	9.7	9.2	11.7	9.6	11.3	9.8	10	10.2	10	9.4
2007	16.3	9.5	10.2	9.6	11.4	9.5	11.1	10.2	9.7	10	10.1	9.8
2008	17	9.6	10.6	10.4	11.5	10	11.2	10.9	9.8	10.3	10.6	10.8
2009	16.7	9.5	9.6	11	11.3	10	11.2	10.9	9.4	10.4	11.3	10.7
2009	..	..	8.6	10.9	..	..	..	10.8	..	9.9	11.1	..
Death rate (per 1,000 population per annum)												
2001	7.9	9.6	14	11.6	8.4	7.6	8.7	9.5	10.2	11.6	9.7	9.3
2002	7.6	9.8	13.9	11.8	8.4	7.8	8.8	9.4	10.2	12.4	9.6	9.4
2003	7.3	10.2	13.9	11.9	9	7.9	8.7	9.6	10.4	12.3	9.7	9.7
2004	7.1	9.4	13.8	12	7.8	7.5	8.4	9.5	9.7	11.9	9.6	9.3
2005	6.8	9.7	14.2	12.8	7.8	7.8	8.4	9.7	10.2	12.1	9.9	9.4
2006	6.5	9.5	14.5	13.2	8	7.9	8.3	9.7	9.6	12	9.9	9.1
2007	6.5	9.7	14.5	13.5	8.1	7.6	8.1	9.9	9.8	11.7	10	9.2
2008	6.4	9.7	13.7	13.1	7.4	7.9	8.2	10	9.8	11.8	9.8	9.1
2009	6.5	9.8	13.3	12.6	7.3	7.8	8.1	10.1	9.8	12	9.8	9.2
2009	..	..	13.4	12.8	..	..	..	9.9	..	12.1	9.8	..

1 Republic of Cyprus - Data refer to Government controlled areas.
2 Denmark - Excluding Faeroe Islands and Greenland.
3 Finland, Denmark and Sweden - Population statistics are compiled from registers.
4 Finland - Including Aland Islands.
5 France - Excludes diplomatic personnel outside the country and includes members of alien armed forces not living in military camps and foreign diplomatic personnel not living in embassies or consulates. Also Excludes Overseas Departments; namely; French Guiana; Guadeloupe; Martinique and Reunion.
6 Including former GDR throughout.
7 Greece - population excludes armed forces stationed outside the country but includes alien forces stationed in the area.
8 Malta - Including civilian nationals temporarily outside the country.
9 Poland - excluding civilian aliens within the country but including civilian nationals temporarily outside the country.
10 Portugal - including the Azores and Madeira islands.
11 Spain - including the Balearic and Canary Islands.
12 In 2001, the European Union consisted of 15 countries. This has since been expanded to include: 10 countries (2004-EU25); 2 countries (2007-EU27). In this table, all totals include the EU27.
13 Australia - Mid-year estimates have been adjusted for underenumeration; at latest census.
14 Population estimates for Canada have been adjusted for census net undercoverage (including adjustment for incompletely enumerated Indian reserves). Estimates for 2001-2006 are final intercensal estimates. Estimates for 2007 and 2008 are updated postcensal estimates. Estimates for 2009 are preliminary postcensal estimates. Birth rates for 2007-2009 taken from Statistics Canada.
15 New Zealand - Excluding diplomatic personnel and armed forces stationed outside country; also excluding alien armed forces within the country.
16 China - For statistical purposes all data for China do not include those for the Hong Kong SAR, Macao SAR and Taiwan province of China. Population data have been estimated on the basis of the annual National Sample Surveys on Population Changes. Except 2005 population data which are estimated from the National Sample Survey of 1 per cent population.
17 India - Including the Indian held part of Jammu and Kashmir, the final status of which has not yet been determined. Population data for 2002 onwards refer to national projections.
18 Japan - excluding diplomatic personnel outside the country and foreign military and civilian personnel and their dependents stationed in the area
19 USA - excluding armed forces overseas and civilian citizens absent from the country for extended periods.
20 Indicates population estimates of uncertain reliability.
21 Data refer to 15 April.
P Provisional, preliminary or estimated figure.
J Denotes population estimates as at 1 January.

Sources: Office for National Statistics, United Nations, Eurostat.

Table 1.1 continued **Population and vital rates: international**

Selected Countries — Numbers (thousands)/Rates per thousand

Year	Spain[11]	Sweden[3]	EU[12]	Russian Federation	Australia[13]	Canada[14]	New Zealand[15]	China[16]	India[17]	Japan[18]	USA[19]
Population (thousands)											
2001	40721	8896	482619	145,976	19,413	31019	3881	1276270 [20]	1,034,931 [20]	127149	285040
2002	41314	8925	483847	145,306	19,651	31354	3949	1284530 [20]	1,051,258 [20]	127445	287727
2003	42005	8958	485869	144,566	19,895	31640	4027	1292270 [20]	1,068,065 [20]	127718	290211
2004	42692	8994	488065	143,821	20,127	31941	4088	1299880 [20]	1,084,757 [20]	127761	292892
2005	43398	9030	490301	143,114	20,395	32245	4134	1307560 [20]	1,101,318 [20]	127773	295561
2006	44068	9081	492291	142,487	20,698	32576	4185	1314480 [20]	1,117,734 [20]	127756	298363
2007	44874	9148	496441	142,115	21072	32932	4228	1321290 [20]	1,134,023 [20]	127772	301290
2008	45593	9220	498672	141,956	21,499	33327	4269	1328020 [20]	1,150,196 [20]	127704	304060
2009	45929	9299	500327 [P]	141909	21,955 [P]	33,740 [P]	4,316	1334740 [20]	1,166,000 [20,P]	127558	307007 [P]
2010	46073	9374 [P]	..	141915 [J]	22342 [P]	..	4,368 [P]	..	1,182,105 [20,P]	127420	..
Population changes (per 1,000 per annum)											
2001-02	14.6	3.3	2.5	-4.6	12.3	10.8	17.5	6.5	15.8	2.3	9.4
2002-03	16.7	3.7	4.2	-5.1	12.4	9.1	19.8	6	16	2.1	8.6
2003-04	16.4	4	4.5	-5.2	11.7	9.5	15.1	5.9	15.6	0.3	9.2
2004-05	16.5	4	4.6	-4.9	13.3	9.5	11.3	5.9	15.3	0.1	9.1
2005-06	15.4	5.6	4.1	-4.4	14.9	10.3	12.3	5.3	14.9	-0.1	9.5
2006-07	18.3	7.4	8.4	-2.6	18.1	10.9	10.3	5.2	14.6	0.1	9.8
2007-08	16	7.9	4.5	-1.1	20.3	12	9.7	5.1	14.3	-0.5	9.2
2008-09	7.4	8.6	3.3	-0.3	21.2	12.4	11	5.1	13.7	-1.1	9.7
2009-10	3.1	8.1	..	..	..	..	12	..	13.8	-1.1	..
Live birth rate (per 1,000 population per annum)											
2001	10	10.3	10.4	9	12.7	10.8	14.4	13.4	25.4	9.2	14.1
2002	10.1	10.7	10.3	9.6	12.7	10.5	13.7	12.9	25	9.2	14
2003	10.5	11.1	10.3	10.2	12.6	10.6	13.9	12.4	24.8	8.9	14.1
2004	10.6	11.2	10.4	10.4	12.6	10.6	14.2	12.3	24.1	8.8	14
2005	10.7	11.2	10.4	10.2	12.7	10.6	14	12.4	23.8	8.4	14
2006	11	11.7	10.6	10.4	12.8	10.7	14.1	12.1	23.5	8.7	14.3
2007	11	11.7	10.6	11.3	13.5	11	15.1	12.0	23.1	8.6	14.3
2008	11.4	11.9	10.9	12.1	13.8	11.2	15.1	..	22.8	8.7	..
2009	10.8	12	10.7 [P]	12.4	13.5	11.3 [P]	14.5	..	..	8.5	..
2009	..	12.3	..	12.6	..	..	..	..	..	..	..
Death rate (per 1,000 population per annum)											
2001	8.9	10.5	9.9	15.4	6.6	7.1	7.2	6.4	8.4	7.6	8.5
2002	8.9	10.6	9.9	16.1	6.8	7.1	7.1	6.4	8.1	7.8	8.5
2003	9.2	10.4	10.1	16.4	6.6	7.1	7	6.4	8	8	8.4
2004	8.7	10.1	9.6	16	6.6	7.1	7	6.4	7.5	8.1	8.2
2005	8.9	10.2	9.8	16.1	6.4	7.1	6.5	6.5	7.6	8.6	8.3
2006	8.4	10	9.6	15.2	6.5	7	6.7	6.8	7.5	8.6	8.1
2007	8.6	10	9.7	14.6	6.5	7.1	6.7	6.9	7.4	8.8	8
2008	8.6	9.9	9.7	14.6	6.7	7.2	6.8	..	7.4	9.1	..
2009	8.3	9.7	9.7 [P]	14.2	6.4	..	6.7	..	..	9.1	..
2009	..	9.6	..	14.3	..	..	..	..	..	..	..

Table 1.2 **Mid Year Population: national**

Constituent countries of the United Kingdom — Numbers (thousands) and percentage age distribution

Mid-year	United Kingdom	Great Britain	England and Wales	England	Wales	Scotland	Northern Ireland
Estimates							
1971	55,928	54,388	49,152	46,412	2,740	5,236	1,540
1976	56,216	54,693	49,459	46,660	2,799	5,233	1,524
1981	56,357	54,815	49,634	46,821	2,813	5,180	1,543
1986	56,684	55,110	49,999	47,188	2,811	5,112	1,574
1991	57,439	55,831	50,748	47,875	2,873	5,083	1,607
1992	57,585	55,961	50,876	47,998	2,878	5,086	1,623
1993	57,714	56,078	50,986	48,102	2,884	5,092	1,636
1994	57,862	56,218	51,116	48,229	2,887	5,102	1,644
1995	58,025	56,376	51,272	48,383	2,889	5,104	1,649
1996	58,164	56,503	51,410	48,519	2,891	5,092	1,662
1997	58,314	56,643	51,560	48,665	2,895	5,083	1,671
1998	58,475	56,797	51,720	48,821	2,900	5,077	1,678
1999	58,684	57,005	51,933	49,033	2,901	5,072	1,679
2000	58,886	57,203	52,140	49,233	2,907	5,063	1,683
2001	59,113	57,424	52,360	49,450	2,910	5,064	1,689
2002	59,319	57,622	52,567	49,649	2,918	5,055	1,697
2003	59,552	57,850	52,792	49,863	2,929	5,057	1,703
2004	59,842	58,132	53,053	50,110	2,943	5,078	1,710
2005	60,235	58,511	53,416	50,466	2,950	5,095	1,724
2006	60,584	58,843	53,726	50,764	2,962	5,117	1,742
2007	60,986	59,227	54,082	51,106	2,976	5,144	1,759
2008	61,398	59,623	54,455	51,465	2,990	5,169	1,775
2009	61,792	60,003	54,809	51,810	2,999	5,194	1,789
2009 by age group (percentages)							
0–4	6.1	6.1	6.1	6.2	5.7	5.6	6.8
5–15	12.6	12.5	12.6	12.6	12.6	12.0	14.5
16–44	39.6	39.6	39.6	39.8	37.0	38.8	40.6
45–64M/59F	22.3	22.3	22.2	22.1	23.0	23.8	21.1
65M/60F–74	11.6	11.7	11.6	11.5	13.0	12.2	10.4
75 and over	7.8	7.9	7.9	7.8	8.6	7.7	6.4
Projections[1]							
2011	62,649	60,834	55,601	52,577	3,024	5,233	1,815
2016	64,773	62,900	57,576	54,472	3,104	5,324	1,874
2021	66,958	65,031	59,620	56,433	3,187	5,411	1,927
2026	69,051	67,080	61,597	58,334	3,263	5,483	1,971
2031	70,933	68,929	63,397	60,071	3,326	5,532	2,005
2031 by age group (percentages)							
0–4	5.6	5.6	5.6	5.7	5.2	4.9	5.6
5–15	12.4	12.4	12.5	12.5	12.1	11.5	13.3
16–44	36.4	36.4	36.5	36.7	34.2	34.6	35.4
45–65[2]	24.5	24.5	24.4	24.4	24.4	25.7	25.3
66–74[2]	9.4	9.4	9.3	9.2	10.4	10.9	9.6
75 and over	11.7	11 7	11.7	11.6	13.6	12.5	10.9

Note: This table includes the revised mid-2002 to mid-2008 population estimates which were published on 13 May 2010.
Figures for constituent countries may not sum to United Kingdom, Great Britain and England and Wales totals due to rounding.

1 National projections based on mid-2008 population estimates.

2 Based on current laws, between 2010 and 2020, state pension age will change from 65 years for men and 60 years for women to 65 years for both sexes, while between 2026 and 2046, state pension age will increase from 65 years to 68 years for both men and women.

Sources: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency.

Table 1.3 **Population: subnational**

Regions of England — Numbers (thousands) and percentage age distribution

Mid-year	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East	London	South East	South West
Estimates									
1971	2,679	7,108	4,902	3,652	5,146	4,454	7,529	6,830	4,112
1976	2,671	7,043	4,924	3,774	5,178	4,672	7,089	7,029	4,280
1981	2,636	6,940	4,918	3,853	5,187	4,854	6,806	7,245	4,381
1986	2,594	6,833	4,884	3,908	5,180	4,999	6,774	7,468	4,548
1991	2,587	6,843	4,936	4,011	5,230	5,121	6,829	7,629	4,688
1992	2,591	6,841	4,949	4,037	5,237	5,143	6,829	7,657	4,714
1993	2,594	6,847	4,954	4,056	5,246	5,154	6,844	7,673	4,734
1994	2,589	6,839	4,960	4,072	5,249	5,178	6,874	7,712	4,757
1995	2,583	6,828	4,961	4,092	5,257	5,206	6,913	7,763	4,782
1996	2,576	6,810	4,961	4,108	5,263	5,233	6,974	7,800	4,793
1997	2,568	6,794	4,958	4,120	5,262	5,267	7,015	7,853	4,827
1998	2,561	6,792	4,958	4,133	5,271	5,302	7,065	7,889	4,849
1999	2,550	6,773	4,956	4,152	5,272	5,339	7,154	7,955	4,881
2000	2,543	6,774	4,959	4,168	5,270	5,375	7,237	7,991	4,917
2001	2,540	6,773	4,977	4,190	5,281	5,400	7,322	8,023	4,943
2002	2,540	6,777	5,002	4,222	5,294	5,430	7,369	8,043	4,972
2003	2,540	6,799	5,029	4,254	5,310	5,468	7,380	8,080	5,003
2004	2,541	6,819	5,067	4,291	5,324	5,500	7,413	8,115	5,040
2005	2,548	6,839	5,111	4,327	5,347	5,551	7,485	8,173	5,085
2006	2,553	6,852	5,146	4,363	5,362	5,593	7,547	8,224	5,124
2007	2,560	6,864	5,182	4,397	5,378	5,649	7,602	8,296	5,178
2008	2,571	6,874	5,217	4,429	5,408	5,717	7,668	8,369	5,210
2009	2,584	6,898	5,258	4,451	5,431	5,767	7,754	8,436	5,231
2009 by age group (percentages)									
0–4	5.7	6.1	6.0	5.8	6.3	6.1	7.3	6.0	5.4
5–15	12.1	12.7	12.5	12.5	13.1	12.9	12.0	12.9	12.2
16–44	38.5	38.9	40.1	38.7	38.5	37.9	47.9	38.1	36.4
45–64M/59F	23.5	22.6	22.1	22.9	22.1	22.6	19.0	22.8	23.1
65M/60F–74	12.2	11.9	11.6	12.2	12.0	12.2	8.1	11.8	13.3
75 and over	8.1	7.7	7.7	7.9	8.0	8.3	5.6	8.4	9.6
Projections[1]									
2008	2,571	6,874	5,217	4,429	5,408	5,717	7,668	8,369	5,210
2013	2,622	6,989	5,439	4,611	5,543	6,000	8,007	8,696	5,426
2018	2,676	7,116	5,662	4,798	5,689	6,291	8,338	9,034	5,647
2023	2,733	7,250	5,887	4,990	5,842	6,587	8,646	9,391	5,882
2028	2,786	7,370	6,103	5,173	5,986	6,863	8,923	9,734	6,114
2033	2,830	7,472	6,296	5,334	6,113	7,114	9,188	10,047	6,321
2033 by age group (percentages)									
0–4	5.2	5.5	5.5	5.3	5.9	5.4	6.7	5.4	5.0
5–15	11.9	12.5	12.3	12.2	13.1	12.4	12.5	12.4	11.7
16–44	35.6	35.8	37.7	34.8	35.4	34.0	44.1	34.1	33.2
45–65[2]	24.1	23.9	23.9	24.7	23.6	25.2	23.4	25.0	24.5
66–74[2]	10.4	10.0	9.3	10.3	9.6	10.0	6.5	10.0	11.0
75 and over	12.8	12.2	11.4	12.8	12.4	12.9	6.9	13.1	14.7

Note: This table includes the revised mid-2002 to mid-2008 population estimates which were published on 13 May 2010. Figures may not sum to England totals due to rounding.

1 These projections are based on the 2008 population estimates and are consistent with the 2008-based national projections produced by the Office for National Statistics.

2 Based on current laws, between 2010 and 2020, state pension age will change from 65 years for men and 60 years for women to 65 years for both sexes, while between 2026 and 2046, state pension age will increase from 65 years to 68 years for both men and women.

Source: Office for National Statistics

Table 1.4 **Population: age and sex**

Constituent countries of the United Kingdom

Numbers (thousands)

Mid-year	All ages	Age group														
		Under 1	1–4	5–14	15–24	25–34	35–44	45–59	60–64	65–74	75–84	85–89	90 and over	Under 16	16–64M/ 59F [1]	65M/60F [1] and over
United Kingdom																
Persons																
1981	56,357	730	2,726	8,147	9,019	8,010	6,774	9,540	2,935	5,195	2,677	..	..	12,543	33,780	10,035
1986	56,684	748	2,886	7,143	9,200	8,007	7,711	9,212	3,069	5,020	2,971	716	..	11,645	34,725	10,313
1991	57,439	790	3,077	7,141	8,168	8,898	7,918	9,500	2,888	5,067	3,119	626	248	11,685	35,197	10,557
1996	58,164	719	3,019	7,544	7,231	9,131	7,958	10,553	2,785	5,066	3,129	711	317	12,018	35,498	10,649
2001	59,113	663	2,819	7,624	7,261	8,475	8,846	11,168	2,884	4,947	3,296	753	377	11,863	36,406	10,845
2002	59,319	661	2,752	7,602	7,404	8,261	9,003	11,306	2,892	4,967	3,344	738	388	11,783	36,620	10,915
2003	59,552	680	2,704	7,544	7,579	8,078	9,105	11,410	2,949	5,000	3,399	706	399	11,716	36,824	11,012
2004	59,842	705	2,685	7,473	7,745	7,948	9,185	11,506	3,027	5,028	3,431	702	409	11,641	37,083	11,118
2005	60,235	716	2,712	7,370	7,891	7,931	9,245	11,616	3,114	5,046	3,420	755	419	11,585	37,419	11,232
2006	60,584	732	2,764	7,238	8,026	7,892	9,260	11,744	3,240	5,029	3,416	820	423	11,533	37,708	11,344
2007	60,986	756	2,838	7,126	8,161	7,864	9,246	11,730	3,485	5,058	3,424	873	425	11,507	37,916	11,563
2008	61,398	788	2,912	7,051	8,220	7,907	9,149	11,797	3,641	5,157	3,441	918	417	11,514	38,090	11,794
2009	61,792	784	2,994	7,017	8,220	7,993	9,012	11,946	3,719	5,279	3,458	933	437	11,549	38,236	12,007
Males																
1981	27,412	374	1,400	4,184	4,596	4,035	3,409	4,711	1,376	2,264	922	..	..	6,439	17,646	3,327
1986	27,542	384	1,478	3,664	4,663	4,022	3,864	4,572	1,463	2,206	1,060	166	..	5,968	18,142	3,432
1991	27,909	403	1,572	3,655	4,146	4,432	3,949	4,732	1,390	2,272	1,146	166	46	5,976	18,303	3,630
1996	28,287	369	1,547	3,857	3,652	4,540	3,954	5,244	1,360	2,311	1,187	201	65	6,148	18,375	3,764
2001	28,832	338	1,445	3,906	3,672	4,215	4,382	5,534	1,412	2,308	1,308	227	85	6,077	18,827	3,928
2002	28,961	338	1,407	3,896	3,760	4,112	4,461	5,593	1,414	2,325	1,338	226	89	6,036	18,947	3,978
2003	29,104	349	1,383	3,867	3,858	4,022	4,513	5,644	1,440	2,346	1,369	219	94	6,004	19,072	4,028
2004	29,274	362	1,376	3,831	3,956	3,959	4,545	5,690	1,479	2,365	1,392	223	98	5,969	19,227	4,078
2005	29,493	367	1,389	3,780	4,031	3,950	4,580	5,744	1,523	2,380	1,400	247	103	5,939	19,424	4,130
2006	29,689	374	1,416	3,707	4,110	3,939	4,584	5,803	1,585	2,379	1,413	273	106	5,909	19,609	4,171
2007	29,918	388	1,454	3,646	4,195	3,938	4,575	5,785	1,703	2,398	1,432	295	108	5,893	19,792	4,233
2008	30,154	403	1,492	3,607	4,216	3,986	4,533	5,814	1,780	2,449	1,452	313	108	5,894	19,938	4,323
2009	30,374	402	1,533	3,591	4,211	4,047	4,466	5,884	1,818	2,511	1,472	320	119	5,912	20,040	4,422
Females																
1981	28,946	356	1,327	3,963	4,423	3,975	3,365	4,829	1,559	2,931	1,756	..	..	6,104	16,134	6,708
1986	29,142	364	1,408	3,480	4,538	3,985	3,847	4,639	1,606	2,814	1,911	550	..	5,678	16,583	6,881
1991	29,530	387	1,505	3,487	4,021	4,466	3,968	4,769	1,498	2,795	1,972	460	202	5,709	16,894	6,927
1996	29,877	350	1,472	3,687	3,579	4,591	4,005	5,309	1,426	2,755	1,942	509	252	5,870	17,123	6,885
2001	30,281	324	1,375	3,718	3,589	4,260	4,465	5,634	1,473	2,640	1,987	526	292	5,786	17,579	6,917
2002	30,358	323	1,345	3,706	3,644	4,149	4,542	5,713	1,478	2,642	2,006	513	299	5,748	17,673	6,937
2003	30,448	331	1,321	3,677	3,721	4,056	4,592	5,766	1,509	2,654	2,029	487	305	5,712	17,751	6,984
2004	30,568	343	1,309	3,641	3,789	3,990	4,640	5,816	1,548	2,663	2,040	479	310	5,673	17,855	7,040
2005	30,742	349	1,323	3,590	3,860	3,980	4,665	5,872	1,591	2,666	2,020	509	316	5,645	17,995	7,102
2006	30,895	357	1,349	3,531	3,916	3,953	4,676	5,941	1,656	2,650	2,003	547	317	5,624	18,099	7,172
2007	31,068	368	1,383	3,479	3,966	3,926	4,671	5,945	1,782	2,660	1,992	578	317	5,614	18,124	7,330
2008	31,244	385	1,420	3,444	4,004	3,921	4,616	5,983	1,861	2,708	1,988	605	309	5,620	18,153	7,472
2009	31,418	383	1,462	3,426	4,010	3,946	4,546	6,061	1,901	2,768	1,986	612	318	5,637	18,196	7,585
England and Wales																
Persons																
1981	49,634	634	2,372	7,085	7,873	7,086	5,996	8,433	2,607	4,619	2,388	383	157	10,910	29,796	8,928
1986	49,999	654	2,522	6,226	8,061	7,052	6,856	8,136	2,725	4,470	2,655	461	182	10,161	30,647	9,190
1991	50,748	698	2,713	6,248	7,165	7,862	7,022	8,407	2,553	4,506	2,790	561	223	10,247	31,100	9,400
1996	51,410	637	2,668	6,636	6,336	8,076	7,017	9,363	2,457	4,496	2,801	639	285	10,584	31,353	9,474
2001	52,360	589	2,502	6,740	6,387	7,536	7,816	9,898	2,549	4,377	2,947	677	340	10,495	32,226	9,639
2002	52,567	588	2,444	6,727	6,521	7,354	7,964	10,016	2,555	4,394	2,989	664	351	10,435	32,433	9,699
2003	52,792	607	2,403	6,680	6,685	7,198	8,059	10,102	2,606	4,422	3,037	634	360	10,385	32,623	9,784
2004	53,053	629	2,388	6,616	6,842	7,084	8,133	10,176	2,675	4,445	3,063	632	370	10,323	32,856	9,875
2005	53,416	639	2,414	6,525	6,979	7,073	8,193	10,264	2,757	4,461	3,052	680	378	10,274	33,164	9,978
2006	53,726	653	2,462	6,408	7,101	7,036	8,212	10,369	2,874	4,444	3,045	740	382	10,231	33,418	10,077
2007	54,082	675	2,528	6,311	7,224	7,003	8,207	10,349	3,094	4,469	3,050	787	385	10,210	33,600	10,272
2008	54,455	703	2,595	6,247	7,279	7,038	8,126	10,402	3,238	4,558	3,063	829	378	10,219	33,754	10,482
2009	54,809	699	2,668	6,221	7,278	7,109	8,011	10,533	3,307	4,669	3,077	841	396	10,255	33,882	10,672
Males																
1981	24,160	324	1,218	3,639	4,011	3,569	3,024	4,178	1,227	2,020	825	94	32	5,601	15,589	2,970
1986	24,311	335	1,292	3,194	4,083	3,542	3,438	4,053	1,302	1,972	951	115	35	5,208	16,031	3,072
1991	24,681	356	1,385	3,198	3,638	3,920	3,504	4,199	1,234	2,027	1,029	150	42	5,240	16,193	3,248
1996	25,030	327	1,368	3,393	3,202	4,020	3,489	4,659	1,205	2,059	1,067	182	59	5,416	16,247	3,367
2001	25,574	301	1,281	3,453	3,231	3,758	3,881	4,907	1,252	2,052	1,175	206	77	5,376	16,688	3,510
2002	25,700	301	1,249	3,448	3,312	2,670	3,956	4,957	1,253	2,066	1,202	204	81	5,345	16,802	3,554
2003	25,837	312	1,229	3,424	3,402	3,592	4,006	5,000	1,276	2,084	1,229	198	85	5,322	16,918	3,597
2004	25,991	323	1,224	3,393	3,496	3,536	4,035	5,036	1,310	2,100	1,248	202	89	5,293	17,058	3,640
2005	26,193	327	1,236	3,347	3,566	3,529	4,071	5,080	1,351	2,113	1,256	223	94	5,268	17,239	3,685
2006	26,366	334	1,261	3,282	3,638	3,515	4,077	5,129	1,408	2,111	1,267	248	96	5,243	17,402	3,722
2007	26,570	346	1,296	3,229	3,716	3,511	4,074	5,109	1,513	2,127	1,283	268	99	5,229	17,566	3,776
2008	26,783	360	1,329	3,195	3,736	3,552	4,039	5,133	1,584	2,172	1,300	285	99	5,231	17,696	3,856
2009	26,980	358	1,366	3,183	3,729	3,604	3,982	5,196	1,617	2,228	1,318	290	109	5,249	17,786	3,945
Females																
1981	25,474	310	1,154	3,446	3,863	3,517	2,972	4,255	1,380	2,599	1,564	289	126	5,309	14,207	5,958
1986	25,687	319	1,231	3,032	3,978	3,509	3,418	4,083	1,422	2,498	1,704	346	148	4,953	14,616	6,118
1991	26,067	342	1,328	3,050	3,527	3,943	3,517	4,208	1,319	2,479	1,761	411	181	5,007	14,908	6,152
1996	26,381	310	1,300	3,243	3,134	4,056	3,528	4,704	1,252	2,437	1,734	457	227	5,168	15,106	6,107
2001	26,786	288	1,220	3,287	3,156	3,778	3,935	4,992	1,297	2,326	1,771	471	263	5,119	15,538	6,129
2002	26,867	287	1,195	3,279	3,209	3,684	4,007	5,059	1,302	2,328	1,787	460	270	5,090	15,631	6,146
2003	26,955	295	1,174	3,256	3,283	3,606	4,053	5,102	1,330	2,338	1,808	436	275	5,063	15,705	6,187
2004	27,062	306	1,164	3,223	3,346	3,549	4,098	5,140	1,365	2,345	1,815	430	280	5,029	15,798	6,235
2005	27,224	312	1,178	3,179	3,413	3,545	4,122	5,184	1,406	2,348	1,796	456	285	5,006	15,925	6,292
2006	27,359	319	1,201	3,126	3,463	3,521	4,134	5,240	1,466	2,333	1,778	492	286	4,989	16,015	6,356
2007	27,512	329	1,233	3,082	3,508	3,492	4,132	5,240	1,581	2,342	1,767	520	286	4,982	16,034	6,497
2008	27,672	343	1,266	3,052	3,543	3,486	4,087	5,269	1,654	2,386	1,762	544	279	4,989	16,058	6,626
2009	27,829	341	1,303	3,038	3,548	3,506	4,029	5,337	1,689	2,441	1,759	550	288	5,006	16,096	6,727

Note: This table includes the revised mid-2002 to mid-2008 population estimates which were published on 13 May 2010. Figures may not sum due to rounding.

1 Based on current laws, between 2010 and 2020, state pension age will change from 65 years for men and 60 years for women to 65 years for both sexes, while between 2026 and 2046, state pension age will increase from 65 years to 68 years for both men and women.

Sources: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency.

Table 1.4 continued Population: age and sex

Constituent countries of the United Kingdom

Numbers (thousands)

Mid-year	All ages	Age group														
		Under 1	1–4	5–14	15–24	25–34	35–44	45–59	60–64	65–74	75–84	85–89	90 and over	Under 16	16–64M/ 59F [1]	65M/60F [1] and over
England																
Persons																
1981	46,821	598	2,235	6,678	7,440	6,703	5,663	7,948	2,449	4,347	2,249	362	149	10,285	28,133	8,403
1986	47,188	618	2,380	5,869	7,623	6,682	6,478	7,672	2,559	4,199	2,501	435	172	9,583	28,962	8,643
1991	47,875	660	2,560	5,885	6,772	7,460	6,633	7,920	2,399	4,222	2,626	529	210	9,658	29,390	8,827
1996	48,519	603	2,523	6,255	5,985	7,667	6,638	8,822	2,310	4,217	2,631	602	269	9,985	29,639	8,895
2001	49,450	558	2,366	6,359	6,032	7,171	7,407	9,327	2,395	4,113	2,764	638	321	9,908	30,487	9,055
2002	49,649	558	2,312	6,347	6,157	7,000	7,550	9,438	2,399	4,129	2,803	625	331	9,854	30,685	9,110
2003	49,863	576	2,274	6,303	6,311	6,853	7,642	9,520	2,445	4,155	2,850	596	340	9,808	30,866	9,188
2004	50,110	597	2,261	6,243	6,459	6,746	7,713	9,590	2,509	4,175	2,876	593	349	9,751	31,085	9,273
2005	50,466	606	2,288	6,158	6,591	6,738	7,772	9,675	2,586	4,190	2,865	638	357	9,709	31,387	9,370
2006	50,764	620	2,335	6,048	6,705	6,704	7,791	9,777	2,697	4,171	2,860	695	360	9,670	31,631	9,463
2007	51,106	641	2,398	5,958	6,819	6,674	7,789	9,759	2,906	4,193	2,866	739	363	9,654	31,807	9,646
2008	51,465	667	2,462	5,901	6,870	6,707	7,715	9,813	3,041	4,276	2,878	779	356	9,666	31,956	9,842
2009	51,810	664	2,532	5,880	6,866	6,775	7,611	9,941	3,107	4,380	2,892	790	373	9,704	32,083	10,022
Males																
1981	22,795	306	1,147	3,430	3,790	3,377	2,856	3,938	1,154	1,902	777	89	30	5,280	14,717	2,798
1986	22,949	317	1,219	3,010	3,862	3,357	3,249	3,822	1,224	1,853	897	108	33	4,911	15,147	2,891
1991	23,291	336	1,307	3,011	3,439	3,721	3,311	3,957	1,159	1,900	970	141	39	4,938	15,302	3,050
1996	23,629	309	1,294	3,198	3,023	3,818	3,302	4,390	1,133	1,932	1,003	172	55	5,110	15,358	3,161
2001	24,166	285	1,212	3,257	3,053	3,580	3,681	4,624	1,176	1,928	1,103	194	73	5,075	15,793	3,298
2002	24,287	286	1,181	3,252	3,129	3,498	3,754	4,672	1,176	1,941	1,128	193	77	5,046	15,903	3,338
2003	24,415	296	1,163	3,231	3,213	3,423	3,802	4,713	1,197	1,958	1,154	186	80	5,026	16,011	3,378
2004	24,561	306	1,159	3,201	3,301	3,369	3,830	4,747	1,228	1,972	1,172	190	84	5,000	16,142	3,419
2005	24,756	310	1,171	3,158	3,368	3,363	3,866	4,790	1,267	1,983	1,179	210	88	4,977	16,317	3,461
2006	24,924	317	1,196	3,098	3,436	3,351	3,873	4,838	1,321	1,981	1,190	233	91	4,955	16,475	3,494
2007	25,119	329	1,229	3,048	3,509	3,348	3,871	4,820	1,421	1,995	1,205	251	93	4,943	16,631	3,544
2008	25,323	342	1,261	3,018	3,526	3,387	3,839	4,844	1,487	2,036	1,222	268	93	4,947	16,757	3,619
2009	25,515	340	1,296	3,008	3,518	3,436	3,787	4,907	1,519	2,089	1,239	273	102	4,966	16,845	3,703
Females																
1981	24,026	292	1,088	3,248	3,650	3,327	2,807	4,009	1,295	2,445	1,472	273	119	5,004	13,416	5,605
1986	24,239	301	1,161	2,859	3,761	3,325	3,229	3,850	1,335	2,346	1,604	326	140	4,672	13,815	5,752
1991	24,584	324	1,253	2,873	3,333	3,739	3,322	3,964	1,239	2,323	1,656	388	171	4,720	14,088	5,777
1996	24,890	293	1,229	3,056	2,961	3,849	3,336	4,432	1,177	2,286	1,628	430	214	4,876	14,281	5,734
2001	25,284	273	1,154	3,102	2,979	3,591	3,726	4,702	1,219	2,185	1,661	444	248	4,834	14,694	5,757
2002	25,362	273	1,131	3,094	3,028	3,502	3,796	4,766	1,222	2,187	1,675	433	254	4,807	14,783	5,772
2003	25,448	280	1,111	3,072	3,098	3,430	3,839	4,807	1,248	2,197	1,696	410	260	4,782	14,856	5,810
2004	25,549	291	1,103	3,042	3,158	3,376	3,882	4,843	1,281	2,204	1,703	403	264	4,752	14,943	5,855
2005	25,710	296	1,116	3,000	3,223	3,375	3,906	4,885	1,319	2,206	1,686	428	269	4,731	15,070	5,909
2006	25,840	303	1,139	2,950	3,269	3,353	3,918	4,939	1,376	2,191	1,670	461	270	4,716	15,156	5,968
2007	25,987	312	1,170	2,910	3,311	3,326	3,918	4,939	1,485	2,198	1,660	488	270	4,711	15,175	6,101
2008	26,141	326	1,201	2,883	3,344	3,320	3,876	4,969	1,554	2,239	1,656	511	263	4,719	15,199	6,223
2009	26,295	324	1,236	2,872	3,348	3,339	3,823	5,034	1,588	2,291	1,653	517	271	4,738	15,238	6,319
Wales																
Persons																
1981	2,813	36	136	407	434	383	333	485	158	272	139	21	8	626	1,663	525
1986	2,811	37	143	357	438	369	378	464	166	271	154	26	10	578	1,686	547
1991	2,873	38	153	363	393	402	389	486	154	284	164	32	13	589	1,711	573
1996	2,891	34	146	381	352	409	379	541	147	279	170	37	17	598	1,714	578
2001	2,910	32	136	382	356	365	409	572	154	264	183	39	20	587	1,739	584
2002	2,918	30	132	380	364	354	414	578	156	265	185	39	20	582	1,748	589
2003	2,929	31	129	377	374	345	417	582	161	268	187	38	21	577	1,757	595
2004	2,943	32	127	373	383	339	421	586	166	270	188	39	21	572	1,770	602
2005	2,950	32	126	367	388	336	421	588	171	271	186	42	21	566	1,777	608
2006	2,962	33	127	360	396	332	420	592	177	272	186	45	22	561	1,786	615
2007	2,976	34	130	353	405	329	417	589	188	276	185	48	22	556	1,793	627
2008	2,990	35	133	346	410	330	411	589	197	282	185	50	22	553	1,798	639
2009	2,999	35	136	341	412	334	400	592	200	289	185	51	23	550	1,799	650
Males																
1981	1,365	18	70	209	221	193	168	240	73	118	48	5	2	321	871	173
1986	1,362	19	73	184	221	186	190	231	79	119	54	7	2	297	885	181
1991	1,391	20	78	186	199	199	194	242	74	128	60	8	2	302	891	198
1996	1,401	17	74	195	179	203	187	269	72	128	64	10	3	306	890	206
2001	1,409	16	69	196	179	178	200	283	75	124	73	12	4	301	895	212
2002	1,413	16	68	195	183	172	202	285	77	125	74	12	5	299	899	215
2003	1,422	16	66	194	190	168	204	287	79	126	75	11	5	296	907	218
2004	1,431	16	65	191	195	166	205	288	82	128	76	12	5	294	916	221
2005	1,437	17	65	188	198	166	205	289	84	129	76	13	5	291	922	224
2006	1,442	17	65	185	202	164	204	291	87	130	77	15	5	288	927	227
2007	1,451	17	67	181	208	163	203	289	93	132	78	16	6	286	935	231
2008	1,459	18	68	178	210	165	199	288	97	135	78	17	6	284	939	236
2009	1,466	18	70	175	211	167	195	289	98	139	79	17	6	282	941	242
Females																
1981	1,448	18	66	199	213	190	165	246	85	154	91	16	6	305	791	352
1986	1,449	18	70	173	217	184	188	233	87	152	100	20	8	282	801	366
1991	1,482	19	75	177	194	203	195	244	80	156	104	24	10	288	820	375
1996	1,490	16	71	186	173	206	192	272	75	151	106	27	13	293	825	373
2001	1,502	15	66	186	177	187	209	289	78	141	110	27	15	286	844	372
2002	1,505	15	65	185	181	182	212	293	80	140	111	27	16	283	848	374
2003	1,507	15	63	183	184	176	214	295	82	141	112	27	16	280	850	377
2004	1,513	15	62	182	188	172	216	298	84	142	112	26	16	278	855	380
2005	1,513	16	61	179	189	170	216	299	87	142	110	28	16	275	855	383
2006	1,520	16	62	176	194	168	216	301	90	143	108	30	16	273	859	387
2007	1,525	16	63	172	197	166	215	300	96	144	107	32	16	271	858	395
2008	1,531	17	65	168	200	166	211	301	100	147	107	33	16	269	859	403
2009	1,534	17	66	166	201	167	206	303	102	150	106	34	17	268	858	408

See notes on first page of table

Table 1.4 continued Population: age and sex

Constituent countries of the United Kingdom

Numbers (thousands)

Mid-year	All ages	Age group												Under 16	16–64M/ 59F [1]	65M/60F [1] and over
		Under 1	1–4	5–14	15–24	25–34	35–44	45–59	60–64	65–74	75–84	85–89	90 and over			
Scotland																
Persons																
1981	5,180	69	249	780	875	724	603	880	260	460	232	35	14	1,188	3,110	882
1986	5,112	66	257	656	863	739	665	849	273	435	252	42	15	1,061	3,161	890
1991	5,083	66	258	634	746	795	696	853	265	441	259	51	19	1,021	3,151	912
1996	5,092	59	252	643	651	798	722	925	259	448	256	57	24	1,019	3,151	922
2001	5,064	52	224	629	633	696	782	979	262	447	272	59	29	970	3,150	944
2002	5,055	51	217	622	639	669	788	993	262	449	276	58	30	955	3,150	950
2003	5,057	52	212	614	648	648	793	1,008	265	452	281	55	31	943	3,156	958
2004	5,078	54	210	609	653	635	796	1,025	270	455	286	54	31	935	3,175	968
2005	5,095	54	211	600	659	629	794	1,042	273	457	286	59	32	929	3,191	975
2006	5,117	55	213	588	668	627	790	1,058	280	456	287	63	32	922	3,213	983
2007	5,144	57	218	576	676	629	781	1,060	301	457	290	66	32	917	3,227	1,001
2008	5,169	60	223	567	681	634	766	1,068	312	463	293	69	31	914	3,238	1,017
2009	5,194	60	229	561	685	645	746	1,079	320	470	295	72	32	912	3,249	1,033
Males																
1981	2,495	35	128	400	445	364	298	424	118	194	77	8	3	610	1,603	282
1986	2,462	34	131	336	438	371	331	410	127	184	86	10	3	543	1,636	283
1991	2,445	34	132	324	377	394	345	415	124	192	91	13	3	522	1,623	299
1996	2,447	30	128	328	327	392	355	454	122	198	93	15	5	521	1,616	310
2001	2,434	26	115	322	319	337	379	483	125	200	103	17	6	497	1,610	327
2002	2,432	26	111	319	324	325	382	490	125	202	106	17	7	489	1,612	331
2003	2,435	26	108	314	329	315	383	496	126	204	108	16	7	483	1,616	336
2004	2,446	28	107	312	332	310	384	503	129	207	111	16	7	479	1,627	341
2005	2,456	28	107	307	335	309	382	511	131	208	112	18	7	476	1,635	345
2006	2,469	28	109	301	340	310	380	517	135	208	113	20	8	472	1,649	349
2007	2,486	29	112	295	345	313	375	517	146	210	116	21	8	469	1,662	354
2008	2,500	30	115	290	348	317	368	520	152	213	118	22	8	468	1,672	361
2009	2,515	31	118	287	350	324	358	524	156	217	120	23	8	467	1,680	368
Females																
1981	2,685	33	121	380	430	359	305	456	142	265	155	27	11	579	1,506	600
1986	2,649	32	126	320	424	368	334	439	146	250	166	32	12	518	1,525	606
1991	2,639	32	126	309	369	402	351	437	141	249	168	38	16	499	1,528	612
1996	2,645	28	123	315	324	406	367	470	137	250	164	42	20	498	1,535	612
2001	2,630	26	109	307	314	359	403	496	137	246	169	43	23	473	1,540	617
2002	2,623	25	106	303	315	344	406	504	137	247	171	41	23	466	1,538	619
2003	2,623	25	104	300	318	332	410	512	139	248	173	39	24	460	1,540	622
2004	2,632	26	103	297	321	325	412	521	141	248	175	38	24	457	1,549	627
2005	2,639	26	103	293	324	320	411	531	142	249	174	41	25	454	1,556	630
2006	2,647	27	104	287	328	317	410	541	145	247	174	43	25	450	1,564	634
2007	2,659	28	106	281	332	316	406	542	155	247	174	45	24	448	1,564	646
2008	2,668	29	109	277	334	317	398	548	160	250	175	47	24	446	1,566	656
2009	2,679	29	112	274	335	321	388	556	164	253	175	49	24	445	1,569	664
Northern Ireland																
Persons																
1981	1,543	27	106	282	271	200	175	227	68	116	57	..	..	444	874	224
1986	1,574	28	107	261	277	217	190	227	71	115	64	16	..	423	917	234
1991	1,607	26	106	260	256	240	200	241	70	121	69	14	6	417	945	246
1996	1,662	24	99	266	244	257	220	266	70	123	72	15	7	415	993	253
2001	1,689	22	93	255	240	243	248	290	74	123	77	16	7	397	1,030	262
2002	1,697	22	91	253	243	238	251	296	75	125	79	16	7	393	1,037	266
2003	1,703	21	89	251	246	233	254	301	78	126	81	16	8	388	1,044	271
2004	1,710	22	87	248	250	229	256	305	81	127	82	16	8	383	1,052	275
2005	1,724	23	88	245	253	228	257	310	84	128	83	17	8	381	1,064	280
2006	1,742	23	89	242	258	229	259	316	87	130	83	18	8	380	1,077	284
2007	1,759	24	91	239	260	231	259	321	90	132	84	19	8	380	1,089	290
2008	1,775	26	94	237	259	235	257	327	91	136	85	20	9	381	1,098	296
2009	1,789	26	97	235	258	239	255	333	92	140	86	20	9	382	1,105	302
Males																
1981	757	14	54	145	140	102	87	109	32	50	21	..	..	228	454	75
1986	768	14	55	134	142	109	95	110	33	50	23	4	..	217	474	77
1991	783	13	54	133	131	119	100	118	32	53	26	4	1	213	487	83
1996	810	12	51	136	124	128	109	131	33	54	27	4	1	212	511	87
2001	824	11	48	131	122	120	122	144	35	56	30	5	2	204	529	92
2002	829	11	47	130	124	117	123	147	36	56	31	5	2	202	534	94
2003	833	11	46	129	126	115	124	149	38	57	31	5	2	199	538	95
2004	836	11	45	127	128	113	125	151	39	58	32	5	2	197	542	97
2005	844	12	45	126	130	113	126	153	41	59	32	5	2	196	550	99
2006	853	12	46	124	132	113	127	156	42	60	33	6	2	195	558	101
2007	862	13	47	123	134	114	127	158	44	61	33	6	2	195	564	103
2008	871	13	48	121	133	117	127	161	44	63	34	6	2	196	569	106
2009	879	13	50	121	132	120	125	164	45	66	35	7	2	196	573	109
Females																
1981	786	13	52	137	130	98	88	118	37	66	37	..	..	216	420	150
1986	805	13	52	127	135	107	96	118	38	65	41	12	..	206	442	157
1991	824	13	52	127	125	121	100	123	38	67	44	10	4	203	458	163
1996	851	11	49	130	120	129	110	135	37	69	45	11	6	203	482	167
2001	865	10	45	124	119	123	126	146	38	68	47	11	6	193	501	170
2002	868	11	44	124	119	120	128	149	39	68	48	11	6	191	504	173
2003	870	10	43	122	120	118	129	152	40	68	49	11	6	189	506	175
2004	874	11	42	121	122	116	130	154	42	69	50	11	6	187	509	179
2005	880	11	43	119	124	115	131	157	43	69	50	11	6	186	514	181
2006	888	11	43	118	126	115	132	160	45	69	51	12	6	185	520	183
2007	897	12	44	116	127	117	132	163	46	70	51	13	6	185	526	187
2008	904	12	46	115	127	118	131	165	47	72	51	13	6	186	529	190
2009	910	12	47	114	126	120	129	169	47	74	51	13	6	186	532	193

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Table 1.5 **Population: age, sex and legal marital status**

England and Wales

Numbers (thousands)

Mid-year	Total population	Males					Females				
		Single	Married	Divorced	Widowed	Total	Single	Married	Divorced	Widowed	Total
Aged											
16 and over											
1971	36,818	4,173	12,522	187	682	17,563	3,583	12,566	296	2,810	19,255
1976	37,486	4,369	12,511	376	686	17,941	3,597	12,538	533	2,877	19,545
1981	38,724	5,013	12,238	611	698	18,559	4,114	12,284	828	2,939	20,165
1986	39,837	5,625	11,867	917	695	19,103	4,617	12,000	1,165	2,953	20,734
1991	40,501	5,891	11,636	1,187	727	19,441	4,817	11,833	1,459	2,951	21,060
1996	40,827	6,225	11,310	1,346	733	19,614	5,168	11,433	1,730	2,881	21,212
2001	41,865	6,894	11,090	1,482	733	20,198	5,798	11,150	1,975	2,745	21,667
2002	42,132	7,062	11,040	1,524	729	20,355	5,944	11,093	2,030	2,709	21,777
2003	42,407	7,227	10,992	1,570	726	20,515	6,103	11,033	2,087	2,669	21,892
2004	42,731	7,420	10,939	1,617	722	20,698	6,280	10,981	2,144	2,628	22,033
2005	43,142	7,623	10,922	1,661	719	20,925	6,488	10,944	2,197	2,588	22,217
2006	43,495	7,834	10,879	1,694	716	21,124	6,686	10,894	2,243	2,548	22,371
2007	43,872	8,052	10,853	1,722	715	21,342	6,875	10,856	2,288	2,512	22,530
2008	44,235	8,240	10,854	1,744	714	21,552	7,063	10,818	2,325	2,477	22,683
2009	44,554	8,395	10,862	1,763	712	21,731	7,229	10,794	2,357	2,444	22,823
16–19											
1971	2,666	1,327	34	0	0	1,362	1,163	142	0	0	1,305
1976	2,901	1,454	28	0	0	1,482	1,289	129	0	0	1,419
1981	3,310	1,675	20	0	0	1,694	1,523	93	0	0	1,616
1986	3,131	1,587	10	0	0	1,596	1,484	49	1	0	1,535
1991	2,665	1,358	8	0	0	1,366	1,267	32	0	0	1,300
1996	2,402	1,209	6	0	0	1,216	1,164	21	0	0	1,186
2001	2,567	1,304	5	1	1	1,312	1,237	16	1	1	1,255
2002	2,632	1,352	5	1	1	1,358	1,259	13	1	1	1,274
2003	2,705	1,393	4	1	1	1,398	1,294	12	0	1	1,307
2004	2,773	1,424	3	0	0	1,428	1,333	11	0	0	1,345
2005	2,802	1,434	2	0	0	1,436	1,356	10	0	0	1,366
2006	2,829	1,457	2	0	0	1,459	1,363	7	0	0	1,370
2007	2,861	1,474	2	0	0	1,476	1,379	7	0	0	1,386
2008	2,858	1,468	2	0	0	1,470	1,382	7	0	0	1,389
2009	2,846	1,460	2	0	0	1,462	1,378	7	0	0	1,384
20–24											
1971	3,773	1,211	689	3	0	1,904	745	1,113	9	2	1,869
1976	3,395	1,167	557	4	0	1,728	725	925	16	2	1,667
1981	3,744	1,420	466	10	1	1,896	1,007	811	27	2	1,847
1986	4,171	1,768	317	14	0	2,099	1,383	657	32	1	2,072
1991	3,911	1,717	242	12	0	1,971	1,421	490	29	1	1,941
1996	3,291	1,538	117	3	0	1,658	1,361	260	11	1	1,633
2001	3,157	1,501	74	3	1	1,579	1,390	178	8	1	1,578
2002	3,214	1,531	73	3	1	1,607	1,427	170	8	1	1,607
2003	3,284	1,569	74	3	1	1,647	1,460	166	8	1	1,637
2004	3,379	1,634	75	3	1	1,714	1,493	163	8	2	1,666
2005	3,481	1,695	73	3	1	1,772	1,542	157	8	2	1,709
2006	3,564	1,743	67	3	1	1,814	1,595	147	7	1	1,750
2007	3,666	1,815	64	3	1	1,883	1,640	136	6	1	1,783
2008	3,746	1,856	61	2	1	1,920	1,693	127	6	1	1,827
2009	3,765	1,866	57	2	0	1,925	1,717	117	5	1	1,840
25–29											
1971	3,267	431	1,206	16	1	1,654	215	1,367	29	4	1,614
1976	3,758	533	1,326	39	2	1,900	267	1,522	65	5	1,859
1981	3,372	588	1,057	54	1	1,700	331	1,247	89	4	1,671
1986	3,713	835	949	79	1	1,863	527	1,207	113	4	1,850
1991	4,154	1,132	856	82	1	2,071	800	1,158	123	2	2,083
1996	3,950	1,273	650	46	1	1,970	977	906	93	3	1,980
2001	3,487	1,293	420	28	1	1,742	1,059	625	58	3	1,745
2002	3,363	1,277	384	26	1	1,687	1,048	573	52	3	1,676
2003	3,281	1,265	356	24	1	1,646	1,050	535	48	2	1,635
2004	3,278	1,277	339	23	1	1,640	1,077	512	46	2	1,638
2005	3,353	1,320	331	23	1	1,675	1,127	503	45	2	1,678
2006	3,433	1,371	324	22	1	1,718	1,178	490	45	2	1,715
2007	3,529	1,422	326	22	1	1,771	1,225	487	44	2	1,758
2008	3,622	1,486	329	21	1	1,838	1,262	479	42	2	1,785
2009	3,690	1,535	323	20	1	1,879	1,302	467	40	2	1,811

Note: Figures may not sum due to rounding.

1 2002-2008 figures were revised on the 30 November 2010

Source: Office for National Statistics

Table 1.5 continued **Population: age, sex and legal marital status**

England and Wales

Numbers (thousands)

Mid-year	Total population	Males					Females				
		Single	Married	Divorced	Widowed	Total	Single	Married	Divorced	Widowed	Total
30–34											
1971	2,897	206	1,244	23	3	1,475	111	1,269	34	8	1,422
1976	3,220	236	1,338	55	3	1,632	118	1,388	75	8	1,588
1981	3,715	318	1,451	97	3	1,869	165	1,544	129	9	1,846
1986	3,338	355	1,197	124	2	1,679	206	1,293	154	6	1,660
1991	3,708	520	1,172	155	2	1,849	335	1,330	189	5	1,859
1996	4,126	776	1,135	138	2	2,050	551	1,316	201	7	2,076
2001	4,050	934	971	108	2	2,016	711	1,142	174	7	2,033
2002	3,991	951	926	103	2	1,983	739	1,097	166	6	2,008
2003	3,917	964	881	99	2	1,946	759	1,048	157	6	1,970
2004	3,807	966	833	94	2	1,896	767	992	147	5	1,911
2005	3,720	972	792	88	2	1,854	778	947	136	5	1,866
2006	3,603	971	743	81	2	1,797	782	895	124	5	1,806
2007	3,475	963	702	74	1	1,740	777	840	113	4	1,734
2008	3,415	966	678	68	1	1,714	787	805	105	4	1,701
2009	3,419	989	670	64	1	1,725	810	781	99	4	1,694
35–44											
1971	5,736	317	2,513	48	13	2,891	201	2,529	66	48	2,845
1976	5,608	286	2,442	104	12	2,843	167	2,427	129	42	2,765
1981	5,996	316	2,519	178	12	3,024	170	2,540	222	41	2,972
1986	6,856	396	2,738	293	12	3,438	213	2,815	350	39	3,418
1991	7,022	477	2,632	384	11	3,504	280	2,760	444	34	3,517
1996	7,017	653	2,426	398	12	3,489	427	2,568	497	36	3,528
2001	7,816	963	2,494	411	12	3,881	692	2,649	558	36	3,935
2002	7,964	1,027	2,498	420	12	3,956	749	2,653	570	35	4,007
2003	8,059	1,080	2,487	427	12	4,006	802	2,639	579	34	4,053
2004	8,133	1,126	2,465	433	11	4,035	853	2,625	588	32	4,098
2005	8,193	1,173	2,451	436	11	4,071	903	2,598	590	31	4,122
2006	8,212	1,218	2,418	431	11	4,077	955	2,565	585	30	4,134
2007	8,207	1,259	2,384	422	10	4,074	1,004	2,526	574	29	4,132
2008	8,126	1,289	2,334	406	10	4,039	1,044	2,462	554	27	4,087
2009	8,011	1,310	2,277	386	9	3,982	1,076	2,399	529	26	4,029
45–64											
1971	11,887	502	4,995	81	173	5,751	569	4,709	125	733	6,136
1976	11,484	496	4,787	141	160	5,583	462	4,568	188	683	5,901
1981	11,040	480	4,560	218	147	5,405	386	4,358	271	620	5,635
1986	10,860	461	4,422	331	141	5,355	327	4,220	388	570	5,505
1991	10,960	456	4,394	456	127	5,433	292	4,211	521	503	5,527
1996	11,820	528	4,587	628	121	5,864	318	4,466	732	440	5,956
2001	12,447	644	4,647	747	121	6,159	391	4,578	918	401	6,289
2002	12,571	670	4,646	775	119	6,210	413	4,599	959	391	6,361
2003	12,708	700	4,651	807	118	6,276	437	4,616	999	380	6,432
2004	12,851	734	4,656	839	116	6,345	464	4,631	1,040	370	6,506
2005	13,021	771	4,672	873	115	6,431	496	4,650	1,083	361	6,590
2006	13,243	813	4,704	905	115	6,537	534	4,689	1,129	355	6,706
2007	13,443	857	4,717	935	114	6,623	576	4,722	1,175	347	6,821
2008	13,640	906	4,736	961	113	6,717	624	4,744	1,216	339	6,923
2009	13,840	961	4,756	985	111	6,814	677	4,766	1,255	329	7,026
65 and over											
1971	6,592	179	1,840	17	492	2,527	580	1,437	32	2,016	4,065
1976	7,119	197	2,033	33	510	2,773	569	1,579	60	2,138	4,347
1981	7,548	216	2,167	54	534	2,971	533	1,692	90	2,263	4,578
1986	7,768	223	2,234	76	539	3,072	477	1,759	127	2,333	4,696
1991	8,080	231	2,332	99	586	3,248	422	1,853	152	2,405	4,832
1996	8,221	247	2,390	134	597	3,367	369	1,897	196	2,393	4,854
2001	8,342	254	2,478	183	595	3,510	318	1,960	259	2,295	4,832
2002	8,397	255	2,509	196	594	3,554	308	1,987	276	2,272	4,844
2003	8,454	257	2,539	209	592	3,597	301	2,017	295	2,245	4,857
2004	8,510	258	2,568	223	591	3,640	293	2,047	314	2,216	4,870
2005	8,571	260	2,599	238	589	3,685	286	2,078	334	2,187	4,886
2006	8,611	260	2,622	252	587	3,722	279	2,102	353	2,155	4,889
2007	8,691	263	2,658	267	587	3,776	274	2,138	375	2,128	4,916
2008	8,828	269	2,714	285	587	3,856	271	2,196	401	2,104	4,972
2009	8,983	274	2,778	305	588	3,945	268	2,258	430	2,082	5,038

See notes on first page of table

Table 2.1 **Vital statistics summary**

Constituent countries of the United Kingdom

Numbers (thousands) and rates

Year and quarter	All live births		Live births outside marriage		Marriages		Civil Partnerships		Divorces		Deaths		Infant mortality[6]		Neonatal mortality[7]		Perinatal mortality[8]	
	Number	Rate[1]	Number	Rate[2]	Number	Rate[3]	Number	Rate[4]	Number	Rate[5]	Number	Rate[1]	Number	Rate[2]	Number	Rate[2]	Number	Rate[9]
United Kingdom																		
1976	675.5	12.0	61.1	90	406.0	..	:	:	136.0	..	680.8	12.1	9.79	14.5	6.68	9.9	12.25	18.0
1981	730.7	13.0	91.3	125	397.8	49.4	:	:	157.0	11.3	658.0	11.7	8.16	11.2	4.93	6.7	8.79	12.0
1986	754.8	13.3	154.3	204	393.9	..	:	:	168.3	..	660.7	11.7	7.18	9.5	4.00	5.3	7.31	9.6
1991	792.3	13.8	236.1	298	349.7	..	:	:	173.5	..	646.2	11.2	5.82	7.4	3.46	4.4	6.45	8.1
1996	733.2	12.6	260.4	355	317.5	..	:	:	171.7	..	636.0	10.9	4.50	6.1	3.00	4.1	6.41	8.7
2001	669.1	11.3	268.0	401	286.1	..	:	:	156.8	..	602.3	10.2	3.69	5.5	2.45	3.7	5.40	8.0
2002	668.8	11.3	271.7	406	293.0	..	:	:	160.8	..	608.0	10.3	3.54	5.3	2.37	3.5	5.59	8.3
2003	695.6	11.7	288.5	415	308.6	..	:	:	166.2	..	612.1	10.3	3.69	5.3	2.51	3.6	5.95	8.5
2004	716.0	12.0	302.6	423	313.6	..	:	:	166.7	..	584.8	9.8	3.66	5.1	2.49	3.5	6.03	8.4
2005	722.5	12.0	310.2	429	286.8	..	1.95[10]	..	154.6	..	583.0	9.7	3.67	5.1	2.52	3.5	5.78	8.0
2006	748.6	12.4	326.8	437	277.6	..	16.11	..	147.8	..	572.2	9.4	3.74	5.0	2.61	3.5	5.94	7.9
2007	772.2	12.7	343.2	444	273.9	..	8.73	..	143.9	..	574.7	9.4	3.74	4.8	2.55	3.3	6.00	7.7
2008	794.4	12.9	360.8	454	273.2	..	7.17	..	136.0	..	579.7	9.4	3.75	4.7	2.56	3.2	6.02	7.5
2009	790.2	12.8	365.8	463	266.9[P]	..	6.28	..	126.5	..	559.6	9.1	3.68	4.6	2.51	3.2	6.04	7.6
2007 March	184.4	12.3	81.9	444	31.2	..	1.69	..	38.8	..	159.3	10.6	0.91	4.9	0.64	3.4	1.47	7.9
June	189.8	12.5	82.6	435	76.6	..	2.37	..	37.1	..	138.0	9.1	0.99	5.2	0.66	3.5	1.53	8.0
Sept	202.8	13.2	90.5	446	117.7	..	2.96	..	36.6	..	129.9	8.4	0.94	4.6	0.63	3.1	1.50	7.4
Dec	195.3	12.7	88.1	451	48.4	..	1.71	..	31.3	..	147.5	9.6	0.90	4.6	0.62	3.2	1.50	7.6
2008 March	195.4	12.8	88.8	455	32.2	..	1.25	..	35.3	..	155.6	10.2	0.95	4.9	0.66	3.4	1.53	7.8
June	198.2	12.9	89.1	449	74.2	..	1.93	..	34.5	..	140.2	9.2	0.88	4.4	0.59	3.0	1.48	7.4
Sept	204.4	13.4	93.3	456	115.6	..	2.46	..	33.9	..	130.3	8.4	0.97	4.7	0.67	3.3	1.47	7.2
Dec	196.4	12.7	89.6	456	51.3	..	1.53	..	32.3	..	153.5	9.9	0.95	4.8	0.64	3.2	1.54	7.8
2009 March	189.8	12.5	87.8	463	30.8[P]	..	0.98	..	31.5	..	157.9	10.4	0.93	4.9	0.62	3.2	1.49	7.8
June	196.3	12.7	89.2	455	75.0[P]	..	1.66	..	30.5	..	131.9	8.6	0.94	4.8	0.63	3.2	1.51	7.7
Sept	202.8	13.0	94.6	466	111.1[P]	..	2.28	..	31.9	..	126.4	8.1	0.89	4.4	0.64	3.1	1.54	7.5
Dec	201.3	12.9	94.2	468	50.0[P]	..	1.37	..	32.6	..	143.5	9.2	0.91	4.5	0.63	3.1	1.50	7.4[P]
2010 March	195.7[P]	12.8[P]	92.0[P]	470[P]	..	..	0.96[P]	..	..	..	153.3[P]	10.0[P]	0.91[P]	4.6[P]	0.63[P]	3.2[P]	1.48[P]	7.5[P]
June	197.0[P]	12.7[P]	91.3[P]	463[P]	..	..	1.66[P]	..	..	..	133.4[P]	8.6[P]	0.88[P]	4.5[P]	0.62[P]	3.1[P]	1.45[P]	7.3
Sept	207.0[P]	13.2[P]	97.2[P]	470[P]	..	..	2.33[P]	..	..	..	128.2[P]	8.2[P]	0.87[P]	4.2[P]	0.58[P]	2.8[P]	1.55[P]	7.4
England and Wales																		
1976	584.3	11.8	53.8	92	358.6	57.7	:	:	126.7	10.1	598.5	12.1	8.34	14.3	5.66	9.7	10.45	17.7
1981	634.5	12.8	81.0	128	352.0	49.6	:	:	145.7	11.9	577.9	11.6	7.02	11.1	4.23	6.7	7.56	11.8
1986	661.0	13.2	141.3	214	347.9	43.6	:	:	153.9	12.9	581.2	11.6	6.31	9.6	3.49	5.3	6.37	9.6
1991	699.2	13.8	211.3	302	306.8	36.0	:	:	158.7	13.5	570.0	11.2	5.16	7.4	3.05	4.4	5.65	8.0
1996	649.5	12.6	232.7	358	279.0	30.9	:	:	157.1	13.8	560.1	10.9	3.99	6.1	2.68	4.1	5.62	8.6
2001	594.6	11.4	238.1	400	249.2	25.4	:	:	143.8	12.9	530.4	10.1	3.27	5.5	2.15	3.6	4.76	8.0
2002	596.1	11.3	242.0	406	255.6	25.6	:	:	147.7	13.3	535.4	10.2	3.17	5.3	2.14	3.6	5.01	8.3
2003	621.5	11.8	257.2	414	270.1	26.5	:	:	153.1	13.9	539.2	10.2	3.31	5.3	2.25	3.6	5.35	8.6
2004	639.7	12.1	269.7	422	273.1	26.2	:	:	153.0	14.0	514.3	9.7	3.27	5.1	2.24	3.5	5.41	8.4
2005	645.8	12.1	276.5	428	247.8	23.3	1.86[10]	5.8[10]	141.3	12.9	513.0	9.6	3.25	5.0	2.22	3.4	5.17	8.0
2006	669.6	12.5	291.4	435	239.5	22.0	14.94	1.4	132.1	12.1	502.6	9.4	3.37	5.0	2.35	3.5	5.36	8.0
2007	690.0	12.8	305.6	443	235.4	21.2	7.93	0.7	128.1	11.8	504.1	9.3	3.35	4.8	2.28	3.3	5.37	7.7
2008	708.7	13.0	320.8	453	235.8	20.9	6.56	0.6	121.7	11.2	509.1	9.3	3.37	4.8	2.30	3.2	5.38	7.6
2009	706.2	12.9	326.2	462	231.5[P]	20.2[P]	5.69	0.5[P]	114.0	10.5	491.3	9.0	3.31	4.7	2.25	3.2	5.40	7.6

Notes: Final 2010 birth and death figures for England and Wales will be published in July 2011.
The publication of provisional annual figures in May has been discontinued.
Death figures for England and Wales represent the number of deaths registered in each year up to 1992, and the number of deaths occurring in each year from 1993 to 2001. Death figures for 2002 onwards relate to registrations.
Infant, neonatal and perinatal mortality rates for Northern Ireland take account of the non-resident livebirths.
Birth and death figures for England and also for Wales each exclude events for persons usually resident outside England and Wales. These events are, however, included in the totals for England and Wales combined, and for the United Kingdom.
All infant, neonatal and perinatal mortality data has been revised to registration data.
From 1981 births to non-resident mothers in Northern Ireland are excluded from the figures for Northern Ireland, and for the United Kingdom.
Divorce figures for England and Wales back to 2003 differ slightly to those previously published due to further duplicate records being identified and removed from the datasets.
The birth and death rates for 2009 are based on mid-2009 population estimates.
The birth and death rates for 2010 are based on 2008-based population projections for 2010.

1 Per 1,000 population of all ages.
2 Per 1,000 live births.
3 Persons marrying per 1,000 unmarried population aged 16 and over.
4 Persons forming a civil partnership per 1,000 unmarried population aged 16 and over.
5 Persons divorcing per 1,000 married population.
6 Deaths under 1 year.

The birth rates for all live births and the death rates for 2002-2008 have been calculated using revised mid-2002 to mid-2008 population estimates which were published on 13 May 2010.
Live births outside marriage, marriage, civil partnership and divorce rates for 2009 and 2010 are based on 2009 marital status estimates which include marriages abroad.
Rates of live births outside marriage, marriages, civil partnerships and divorces for mid-2002 to mid-2008 have been calculated using revised marital status estimates (including marriages abroad) published on 30 November 2010.
The latest marital status estimates available for Scotland are for 2008. The production of marital status estimates for 2009 and future years are currently on hold pending the results of the NRS Demography Statistical Work Programme Consultation. Rates for 2009 onwards have not been calculated.
Marital status estimates/rates are not available for Northern Ireland/UK.
Figures may not sum due to rounding.

7 Deaths under 4 weeks.
8 Stillbirths and deaths under 1 week.
9 Per 1,000 live births and stillbirths.
10 The Civil Partnership Act 2004 came into force on 5 December 2005 in the UK - see Notes to tables.
P provisional.

Sources: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency.

Table 2.1 continued **Vital statistics summary**

Constituent countries of the United Kingdom

Numbers (thousands) and rates

Year and quarter	All live births		Live births outside marriage		Marriages		Civil Partnerships		Divorces		Deaths		Infant mortality[6]		Neonatal mortality[7]		Perinatal mortality[8]	
	Number	Rate[1]	Number	Rate[2]	Number	Rate[1]	Number	Rate[4]	Number	Rate[5]	Number	Rate[1]	Number	Rate[2]	Number	Rate[2]	Number	Rate[4]
2007 March	164.0	12.3	72.5	442	27.0	9.9	1.55	0.6	34.6	12.9	139.3	10.4	0.80	4.9	0.56	3.4	1.31	7.9
June	169.5	12.6	73.5	434	66.0	23.9	2.16	0.8	33.1	12.2	121.0	9.0	0.88	5.2	0.60	3.5	1.36	8.0
Sept	181.4	13.3	80.8	445	101.3	36.3	2.68	1.0	33.0	12.0	114.0	8.4	0.84	4.6	0.57	3.1	1.35	7.4
Dec[p]	175.0	12.8	78.7	450	41.1	14.7	1.54	0 6	27.6	10.1	129.7	9.5	0.83	4.7	0.56	3.2	1.35	7.7
2008 March	173.8	12.8	78.6	452	27.6	9.8	1.13	0.4	31.8	11.8	136.4	10.1	0.86	4.9	0.60	3.4	1.38	7.9
June	177.0	13.1	79.4	449	64.1	22.8	1.79	0 6	30.7	11.4	123.1	9.1	0.79	4.5	0.53	3.0	1.33	7.4
Sept	182.4	13.3	83.1	455	100 1	35.3	2.24	0.8	30.4	11.2	114.3	8.4	0.87	4.8	0.60	3.3	1.32	7 2
Dec	175.5	12.8	79.8	455	44.0	15.5	1.39	0.5	28.8	10.6	135.3	9.9	0.85	4.8	0.57	3.3	1.36	7.7
2009 March	169.0	12.5	77.8	461	26.8[r]	9.5[p]	0.91	0.3	28.4	10.6	138.9	10.3	0.83	4.9	0.54	3.2	1.33	7.8
June	175.1	12.8	79.4	454	64.8[r]	22.7[r]	1.49	0.5	27.2	10.1	115.7	8.5	0.85	4.9	0.56	3.2	1.34	7.6
Sept	181.3	13.1	84.4	466	96.6[r]	33.5[r]	2.06	0.7	28.8	10.6	110.7	8.0	0.80	4.4	0.57	3.1	1.38	7.6
Dec	180.9	13.1	84.5	467	43.3[r]	15.0[r]	1.23	0.4	29.6	10.8	126.1	9.1	0.84	4.6	0.58	3.2	1.35	7.4
2010 March	174.7[p]	12.8[p]	81.9[p]	469[p]	26.5[p]	9.4[p]	0.88[p]	0.3[p]	30.2[p]	11.3[p]	134.5[p]	9.9[p]	0.80[p]	4.6[p]	0.56[p]	3.2[p]	1.31[p]	7.5[p]
June	176.1[p]	12.8[p]	81.4[p]	462[p]	67.2[p]	23.5[p]	1.51[p]	0.5[p]	29.3[p]	10.9[p]	117.3[p]	8.5[p]	0.80[p]	4.5[p]	0.55[p]	3.1[p]	1.31[p]	7.4[p]
Sept	185.7[p]	13.3[p]	87.3[p]	470[p]	..	..	2.12[p]	0.7[p]	..	..	112.4[p]	8.1[p]	0.79[p]	4.3[p]	0.53[p]	2.8[p]	1.40[p]	7.5[p]
England																		
1976	550.4	11.8	50.8	92	339.0	..	:	:	..	..	560.3	12.0	7.83	14.2	5.32	9.7	9.81	17.6
1981	598.2	12.8	76.9	129	332.2	..	:	:	..	..	541.0	11.6	6.50	10.9	3.93	6.6	7.04	11.7
1986	623.6	13.2	133.5	214	328.4	.	:	:	146.0	..	544.5	11.6	5.92	9.5	3.27	5.2	5.98	9.5
1991	660.8	13.8	198.9	301	290.1	..	:	:	150.1	..	534.0	11.2	4.86	7.3	2.87	4.3	5.33	8.0
1996	614.2	12.7	218.2	355	264.2	..	:	:	148.7	..	524.0	10.8	3.74	6.1	2.53	4.1	5.36	8.7
2001	563.7	11.4	223.3	396	236.2	..	:	:	136.4	..	496.1	10.0	3.06	5.4	2.03	3.6	4.51	8.0
2002	565.7	11.4	227.0	401	242.1	..	:	:	140.2	..	500.8	10.1	3.00	5.3	2.03	3.6	4.76	8.4
2003	589.9	11.8	241.4	409	255.6	..	:	:	145.4	..	504.1	10.1	3.15	5.3	2.14	3.6	5.08	8.6
2004	607.2	12.1	253.1	417	258.2	..	:	:	145.0	..	480.7	9.6	3.07	5.1	2.12	3.5	5.12	8.4
2005	613.0	12.1	259.4	423	233.8	..	1.79[10]	..	134.2	..	479.7	9.5	3.08	5.0	2.11	3.4	4.91	8.0
2006	635.7	12.5	273.5	430	226.0	..	14.38	..	125.2	..	470.3	9.3	3.19	5.0	2.24	3.5	5.11	8.0
2007	655.4	12.8	287.0	438	222.5	..	7.64	..	121.5	..	470.7	9.2	3.13	4.8	2.15	3.3	5.10	7.7
2008	672.8	13.1	300.9	447	222.9	..	6.28	..	115.5	..	475.8	9.2	3.18	4.7	2.18	3.2	5.11	7.6
2009	671.1	13.0	306.3	457	219.0[p]	..	5.44	..	107.2	..	459.2	8.9	3.11	4.6	2.13	3.2	5.11	7.6
2007 March	155.9	12.4	68.1	437	25.6	..	1.49	..	32.8	..	130.3	10.3	0.74	4.7	0.52	3.3	1.23	7.8
June	161.0	12.6	69.0	429	62.4	..	2.06	..	31.3	..	112.9	8.9	0.84	5.2	0.57	3.5	1.30	8.0
Sept	172.2	13.4	75.9	441	95.6	..	2.60	..	31.3	..	106.4	8.3	0.79	4.6	0.54	3.1	1.29	7.5
Dec	166.3	12.9	74.0	445	38.9	..	1.48	..	26.2	..	121.2	9.4	0.76	4.6	0.53	3.2	1.28	7.6
2008 March	165.0	12.9	73.7	447	26.0	..	1.08	..	30.2	..	127.6	10.0	0.82	4.9	0.57	3.4	1.30	7.9
June	167.9	13.1	74.4	443	60.5	..	1.72	..	29.2	..	115.1	9.0	0.74	4.4	0.50	3.0	1.26	7.5
Sept	173.2	13.4	77.9	450	94 6	..	2.14	..	28.8	..	106.7	8.2	0.82	4.7	0.57	3.3	1.25	7.2
Dec	166.7	12.9	74.9	449	41.7	..	1.33	..	27.3	..	126.4	9.8	0.81	4.8	0.54	3.3	1.30	7.7
2009 March	160.5	12.6	73.1	455	25.4[r]	.	0.88	..	26.8	..	129.7	10.2	0.79	4.9	0.52	3.3	1.27	7.9
June	166.4	12.9	74.6	448	61.3[r]	..	1.41	..	25.6	..	108.2	8.4	0.80	4.8	0.53	3.2	1.27	7.6
Sept	172.2	13.2	79.3	460	91.3[p]	..	1.97	..	27.0	..	103.5	7.9	0.74	4.3	0.53	3.1	1.30	7.5
Dec	171.9	13.2	79.4	462	41.0[p]	..	1.18	..	27.8	..	117.8	9.0	0.78	4.5	0.54	3.1	1.27	7.3
2010 March	165.8[p]	12.9[p]	76.8[p]	463[p]	25.1[p]	..	0.84[p]	..	28.3[p]	..	125.8[p]	9.8[p]	0.76[p]	4.6[p]	0.53[p]	3.2[p]	1.24[p]	7.4[p]
June	167.4[p]	12.9[p]	76.5[p]	457[p]	63.5[p]	..	1.45[p]	..	27.4[p]	..	109.7[p]	8.4[p]	0.75[p]	4.5[p]	0.53[p]	3.1[p]	1.25[p]	7.4[p]
Sept	176.4[p]	13.4[p]	81.9[p]	464[p]	..	..	2.02[p]	..	..	..	105.0[p]	8.0[p]	0.75[p]	4.2[p]	0.50[p]	2.8[p]	1.33[p]	7.5[p]
Wales																		
1976	33.4	11.9	2.9	86	19.5	..	:	:	..	..	36.3	13.0	0.46	13.7	0.32	9.6	0.64	19.0
1981	35.8	12.7	4.0	112	19.8	..	:	:	..	..	35.0	12.4	0.45	12.6	0.29	8.1	0.51	14.1
1986	37.0	13.2	7.8	211	19.5	..	:	:	7.8	..	34.7	12.3	0.35	9.5	0.21	5.6	0.38	10.3
1991	38.1	13.3	12.3	323	16.6	..	:	:	8.4	..	34.1	11.9	0.25	6.6	0.16	4.1	0.30	7.9
1996	34.9	12.1	14.4	412	14.8	..	:	:	8.4	..	34.6	12.0	0.20	5.6	0.13	3.6	0.26	7.5
2001	30.6	10.5	14.8	483	13.0	..	:	:	7.4	..	33.0	11.3	0.17	5.5	0.11	3.4	0.23	7.5
2002	30.2	10.4	15.0	497	13.5	..	:	:	7.6	..	33.3	11.4	0.14	4.7	0.10	3.1	0.24	7.7
2003	31.4	10.7	15.8	503	14.5	..	:	:	7.7	..	33.8	11.5	0.13	4.1	0.09	3.0	0.24	7.5
2004	32.3	11.0	16.6	513	14.9	..	:	:	7.9	..	32.3	11.0	0.17	5.1	0.11	3.3	0.26	8.1
2005	32.6	11.0	17.1	524	14.0	..	0.07[10]	..	7.2	..	32.2	10.9	0.14	4.3	0.09	2.9	0.24	7.4
2006	33.6	11.4	17.8	530	13.5	..	0.56	..	6.9	..	31.1	10.5	0.14	4.1	0.09	2.8	0.23	6.9
2007	34.4	11.6	18.5	538	12.9	.	0.29	..	6.7	..	32.1	10.8	0.18	5.3	0.12	3.4	0.25	7.3
2008	35.7	11.9	19.8	556	12.9	..	0.28	..	6.3	..	32.1	10.7	0.15	4.1	0.11	3.0	0.24	6.7
2009	34.9	11.6	19.8	566	12.5[p]	..	0.24	..	6.7	..	31.0	10.3	0.17	4.8	0.11	3.1	0.26	7.4
2007 March	8.1	11.0	4.3	536	1.3	..	0.06	..	1.8	..	8.8	11.9	0.05	6.3	0.03	3.7	0.07	9.0
June	8.5	11.5	4.5	530	3.6	..	0.10	..	1.8	..	7.9	10.6	0.04	4.5	0.02	2.8	0.06	6.8
Sept	9.1	12.2	4.9	541	5.7	..	0.08	..	1.7	..	7.3	9.7	0.04	4.4	0.03	2.8	0.05	5.7
Dec	8.7	11.6	4.8	547	2.2	..	0.06	..	1.4	..	8.3	11.0	0.05	6.1	0.04	4.1	0.07	7.9
2008 March	8.7	11.8	4.8	552	1.6	..	0.06	..	1.6	..	8.6	11.5	0.04	4.1	0.03	3.0	0.06	7.3
June	9.0	12.1	5.0	555	3.5	..	0.07	..	1.5	..	7.7	10.4	0.04	4.2	0.03	3.2	0.06	6.4
Sept	9.2	12.2	5.1	556	5.5	..	0.10	..	1.6	..	7.3	9.7	0.04	3.8	0.03	2.9	0.06	6.3
Dec	8.8	11.6	4.9	561	2.3	..	0.06	..	1.5	..	8.5	11.3	0.04	4.3	0.03	3.0	0.06	6.9

See notes on first page of table

Table 2.1 continued Vital statistics summary

Constituent countries of the United Kingdom

Numbers (thousands) and rates

Year and quarter	All live births		Live births outside marriage		Marriages		Civil Partnerships		Divorces		Deaths		Infant mortality[6]		Neonatal mortality[7]		Perinatal mortality[8]	
	Number	Rate[1]	Number	Rate[2]	Number	Rate[3]	Number	Rate[4]	Number	Rate[5]	Number	Rate[1]	Number	Rate[2]	Number	Rate[2]	Number	Rate[9]
2009 March	8.4	11.4	4.7	559	1.4[P]	..	0.03	..	1.6	..	8.9	12.0	0.03	3.1	0.02	2.0	0.05	5.3
June	8.6	11.5	4.8	561	3.5[P]	..	0.08	..	1.6	..	7.3	9.7	0.04	4.5	0.03	3.0	0.07	7.5
Sept	8.9	11.8	5.1	571	5.3[P]	..	0.09	..	1.8	..	6.9	9.2	0.05	5.5	0.03	3.6	0.08	8.6
Dec	8.9	11.8	5.1	572	2.3[P]	..	0.05	..	1.8	..	7.9	10.5	0.05	5.8	0.03	3.6	0.07	8.1
2010 March	8.8[P]	11.8[P]	5.1[P]	579[P]	1.3[P]	..	0.04[P]	..	1.9[P]	..	8.5[P]	11.5[P]	0.04[P]	4.6[P]	0.03[P]	3.2[P]	0.07[P]	7.6[P]
June	8.6[P]	11.4[P]	4.9[P]	571[P]	3.7[P]	..	0.06[P]	..	1.9[P]	..	7.4[P]	9.8[P]	0.03[P]	3.6[P]	0.02[P]	2.6[P]	0.05[P]	6.0[P]
Sept	9.2[P]	12.2[P]	5.4[P]	588[P]	..	..	0.10[P]	..	..	..	7.1[P]	9.4[P]	0.04[P]	4.1[P]	0.03[P]	2.8[P]	0.07[P]	7.3[P]
Scotland																		
1976	64.9	12.5	6.0	93	37.5	53.8	:	:	8.1	6.5	65.3	12.5	0.96	14.8	0.67	10.3	1.20	18.3
1981	69.1	13.4	8.5	122	36.2	47.5	:	:	9.9	8.0	63.8	12.3	0.78	11.3	0.47	6.9	0.81	11.6
1986	65.8	12.9	13.6	206	35.8	42.9	:	:	12.8	10.7	63.5	12.4	0.58	8.8	0.34	5.2	0.67	10.2
1991	67.0	13.2	19.5	291	33.8	39.0	:	:	12.4	10.6	61.0	12.0	0.47	7.1	0.29	4.6	0.58	8.6
1996	59.3	11.6	21.4	360	30.2	33.2	:	:	12.3	10.9	60.7	11.9	0.37	6.2	0.23	3.9	0.55	9.2
2001	52.5	10.4	22.8	433	29.6	31.0	:	:	10.7	9.7	57.4	11.3	0.29	5.5	0.20	3.8	0.45	8.5
2002	51.3	10.1	22.5	440	29.8	30.8	:	:	10.9	10.0	58.1	11.5	0.27	5.3	0.16	3.2	0.39	7.6
2003	52.4	10.4	23.9	455	30.8	31.3	:	:	10.9	10.1	58.5	11.6	0.27	5.1	0.18	3.4	0.42	8.0
2004	54.0	10.6	25.2	467	32.2	32.1	:	:	11.3	10.5	56.2	11.1	0.27	4.9	0.17	3.1	0.44	8.1
2005	54.4	10.7	25.6	471	30.9	30.3	0.08[10]	2.5[10]	10.9	10.3	55.7	10.9	0.28	5.2	0.19	3.5	0.42	7.7
2006	55.7	10.9	26.6	477	29.9	28.7	1.05	1.0	13.1	12.4	55.1	10.8	0.25	4.5	0.17	3.1	0.42	7.4
2007	57.8	11.2	28.4	491	29.9	28.0	0.69	0.6	12.8	12.2	56.0	10.9	0.27	4.7	0.19	3.2	0.45	7.8
2008	60.0	11.6	30.1	501	28.9	26.6	0.53	0.5	11.5	11.0	55.7	10.8	0.25	4.2	0.17	2.8	0.45	7.4
2009	59.0	11.4	29.7	503	27.5	..	0.50	..	10.4	..	53.9	10.4	0.24	4.0	0.17	2.8	0.44	7.4
2010	58.8[P]	11.3[P]	29.5[P]	502[P]	28.5[P]	..	0.47[P]	..	..	..	..	..	..	..	..	..	..	..
2007 March	14.2	11.2	7.1	501	3.3	12.7	0.11	0.4	3.3	12.8	15.8	12.5	0.07	4.9	0.05	3.6	0.12	8.1
June	14.3	11.1	6.9	482	8.1	30.7	0.18	0.7	3.3	12.8	13.4	10.4	0.08	5.3	0.05	3.4	0.12	8.6
Sept	14.9	11.5	7.2	485	12.6	46.9	0.25	0.9	3.0	11.5	12.6	9.7	0.07	4.6	0.05	3.0	0.11	7.1
Dec	14.4	11.1	7.1	497	5.8	21.5	0.15	0.6	3.1	11.8	14.2	10.9	0.06	3.9	0.04	2.9	0.11	7.5
2008 March	15.1	11.9	7.7	510	3.4	12.7	0.10	0.4	2.8	10.7	15.1	11.7	0.06	4.0	0.04	2.8	0.11	7.0
June	14.9	11.5	7.3	488	7.9	29.2	0.11	0.4	3.0	11.8	13.5	10.5	0.06	4.0	0.04	2.5	0.11	7.5
Sept	15.5	11.9	7.7	498	11.9	43.5	0.20	0.7	2.8	10.9	12.6	9.7	0.07	4.8	0.05	3.4	0.11	6.9
Dec	14.5	11.2	7.4	507	5.7	20.7	0.12	0.4	2.8	10.8	14.5	11.2	0.06	4.1	0.04	2.4	0.12	8.2
2009 March	14.5	11.3	7.4	512	3.2	..	0.05	..	2.5	..	14.8	11.6	0.06	4.3	0.04	2.9	0.10	6.7
June	14.9	11.5	7.4	495	7.9	..	0.15	..	2.8	..	12.8	9.9	0.06	4.0	0.05	3.2	0.13	8.9
Sept	15.3	11.7	7.6	499	11.3	..	0.19	..	2.6	..	12.4	9.5	0.06	3.9	0.04	2.6	0.10	6.5
Dec	14.4	11.0	7.3	507	5.2	..	0.11	..	2.5	..	13.8	10.5	0.05	3.7	0.04	2.5	0.11	7.4
2010 March	14.7[P]	11.5[P]	7.5[P]	512[P]	3.1[P]	..	0.06[P]	..	..	..	14.7[P]	11.4[P]	0.06[P]	4.4[P]	0.05[P]	3.1[P]	0.12[P]	7.8[P]
June	14.7[P]	11.4[P]	7.4[P]	500[P]	8.3[P]	..	0.13[P]	..	..	..	12.8[P]	9.9[P]	0.05[P]	3.4[P]	0.03[P]	2.3[P]	0.10[P]	6.4[P]
Sept	14.9[P]	11.4[P]	7.3[P]	490[P]	11.6[P]	..	0.17[P]	..	..	..	12.5[P]	9.5[P]	0.05[P]	3.3[P]	0.03[P]	2.2[P]	0.11[P]	7.0[P]
Dec	14.5[P]	11.1[P]	7.3[P]	507[P]	5.5[P]	..	0.11[P]	..	..	..	..	..	..	..	..	..	..	..
Northern Ireland																		
1976	26.4	17.3	1.3	50	9.9	..	:	:	0.6	..	17.0	11.2	0.48	18.3	0.35	13.3	0.59	22.3
1981	27.2	17.6	1.9	70	9.6	45.4	:	:	1.4	4.2	16.3	10.6	0.36	13.2	0.23	8.3	0.42	15.3
1986	28.0	17.8	3.6	128	10.2	..	:	:	1.5	..	16.1	10.3	0.36	13.2	0.23	8.3	0.42	15.3
1991	26.0	16.2	5.3	203	9.2	..	:	:	2.3	..	15.1	9.4	0.19	7.4	0.12	4.6	0.22	8.4
1996	24.4	14.7	6.3	260	8.3	..	:	:	2.3	..	15.2	9.2	0.14	5.8	0.09	3.7	0.23	9.4
2001	22.0	13.0	7.1	325	7.3	..	:	:	2.4	..	14.5	8.6	0.13	6.0	0.10	4.4	0.19	8.4
2002	21.4	12.6	7.2	335	7.6	..	:	:	2.2	..	14.6	8.6	0.10	4.6	0.07	3.4	0.19	8.7
2003	21.6	12.7	7.4	344	7.8	..	:	:	2.3	..	14.5	8.5	0.12	5.2	0.09	3.9	0.18	8.0
2004	22.3	13.0	7.7	345	8.3	..	:	:	2.5	..	14.4	8.4	0.12	5.3	0.08	3.6	0.19	8.0
2005	22.3	12.9	8.1	363	8.1	..	0.01[10]	..	2.4	..	14.2	8.2	0.14	6.1	0.11	4.9	0.19	8.1
2006	23.3	13.4	8.8	380	8.3	..	0.12	..	2.6	..	14.5	8.3	0.12	5.1	0.09	3.8	0.17	6.9
2007	24.5	13.9	9.3	379	8.7	..	0.11	..	2.9	..	14.6	8.3	0.12	4.9	0.08	3.2	0.17	6.9
2008	25.6	14.4	10.0	389	8.5	..	0.09	..	2.8	..	14.9	8.4	0.12	4.7	0.10	3.6	0.19	7.4
2009	24.9	13.9	9.9	398	7.9	..	0.10	..	2.2	..	14.4	8.1	0.13	5.1	0.10	3.8	0.20	7.8
2010	25.3[P]	14.0[P]	10.2[P]	404[P]	8.2[P]	..	0.12[P]	..	..	..	..	..	..	..	..	..	..	..
2007 March	6.1	14.0	2.4	383	1.0	..	0.02	..	0.9	..	4.2	9.7	0.04	6.7	0.03	4.6	0.05	7.6
June	6.0	13.6	2.2	365	2.4	..	0.03	..	0.7	..	3.6	8.2	0.03	5.1	0.02	2.9	0.04	6.7
Sept	6.5	14.7	2.5	386	3.8	..	0.04	..	0.7	..	3.3	7.3	0.03	4.6	0.02	3.2	0.05	7.0
Dec	5.9	13.3	2.2	380	1.6	..	0.02	..	0.6	..	3.6	8.1	0.02	3.3	0.01	2.2	0.04	6.5
2008 March	6.5	14.7	2.6	396	1.1	..	0.02	..	0.8	..	4.1	9.4	0.03	4.6	0.03	3.9	0.05	7.3
June	6.3	14.3	2.4	384	2.2	..	0.02	..	0.7	..	3.6	8.2	0.03	4.6	0.02	3.5	0.04	6.4
Sept	6.5	14.5	2.5	386	3.6	..	0.02	..	0.6	..	3.4	7.7	0.03	3.8	0.02	2.7	0.05	7.5
Dec	6.3	14.2	2.5	389	1.6	..	0.02	..	0.7	..	3.7	8.4	0.04	5.7	0.03	4.3	0.05	8.2
2009 March	6.3	14.1	2.6	409	0.9	..	0.01	..	0.6	..	4.2	9.5	0.04	6.5	0.03	4.8	0.07	10.0
June	6.3	14.1	2.4	389	2.3	..	0.02	..	0.6	..	3.4	7.7	0.03	4.8	0.02	3.4	0.04	6.0
Sept	6.3	14.2	2.5	397	3.2	..	0.03	..	0.5	..	3.2	7.2	0.04	5.6	0.03	4.5	0.05	8.0
Dec	6.0	13.3	2.4	395	1.5	..	0.03	..	0.5	..	3.6	8.0	0.02	3.5	0.02	2.5	0.04	7.0
2010 March	6.4[P]	14.4[P]	2.6[P]	407[P]	0.9[P]	..	0.02[P]	..	..	..	4.1[P]	9.3[P]	0.04[P]	6.1[P]	0.03[P]	4.5[P]	0.05[P]	8.2[P]
June	6.3[P]	14.1[P]	2.5[P]	399[P]	2.4[P]	..	0.03[P]	..	..	..	3.3[P]	7.4[P]	0.04[P]	5.6[P]	0.03[P]	4.7[P]	0.05[P]	7.0[P]
Sept	6.4[P]	14.3[P]	2.6[P]	406[P]	3.3[P]	..	0.05[P]	..	..	..	3.3[P]	7.2[P]	0.03[P]	4.7[P]	0.02[P]	3.7[P]	0.05[P]	6.9[P]
Dec	6.2[P]	13.8[P]	2.5[P]	405[P]	1.6[P]	..	0.03[P]	..	..	..	..	..	..	..	..	..	..	..

See notes on first page of table

Table 2.2 Key demographic and health indicators

Constituent countries of the United Kingdom

Numbers (thousands), rates, percentages, mean age

Year	Population	Live births	Deaths	Dependency ratio		Live births				Age-standardised mortality rate[6]	Period expectation of life (in years) at birth[7]		Infant mortality rate[8]
				Children[1]	Elderly[2]	TFR[3]	Standardised mean age of mother at birth (years)[4]	Unstandardised mean age of mother at birth (years)[5]	Outside marriage as percentage of total live births		Males	Females	
United Kingdom													
1976	56,216.1	675.5	680.8	42.1	29.5	1.74	26.7	26.4	9.0	10,486	..	..	14.5
1981	56,357.5	730.7	658.0	37.1	29.7	1.82	27.0	26.8	12.5	9,506	70.8	76.8	11.2
1986	56,683.8	754.8	660.7	33.5	29.7	1.78	27.4	27.0	20.4	8,914	71.9	77.7	9.5
1991	57,438.7	792.3	646.2	33.2	30.0	1.82	27.7	27.7	29.8	8,168	73.2	78.7	7.4
1996	58,164.4	733.2	636.0	33.9	30.0	1.73	28.2	28.6	35.5	7,584	74.2	79.4	6.1
2001	59,113.5	669.1	602.3	32.6	29.8	1.63	28.6	29.2	40.1	6,807	75.6	80.4	5.5
2002	59,318.8	668.8	608.0	32.2	29.8	1.64	28.7	29.3	40.6	6,791	75.9	80.5	5.3
2003	59,552.2	695.6	612.1	31.8	29.9	1.71	28.8	29.4	41.5	6,773	76.2	80.7	5.3
2004	59,841.9	716.0	584.8	31.4	30.0	1.77	29.0	29.4	42.3	6,421	76.5	80.9	5.1
2005	60,235.5	722.5	583.0	31.0	30.0	1.78	29.1	29.5	42.9	6,279	76.9	81.3	5.1
2006	60,584.3	748.6	572.2	30.6	30.1	1.84	29.2	29.5	43.7	6,066	77.2	81.5	5.0
2007	60,985.7	772.2	574.7	30.4	30.5	1.90	29.3	29.5	44.4	5,965	77.4	81.6	4.8
2008	61,398.2	794.4	579.7	30.2	31.0	1.96	29.3	29.5	45.3	5,907	77.7	81.9	4.7
2009	61,792.0	790.2	559.6	30.2	31.4	1.94	29.4	29.5	46.3	5,630	..	..	4.6
England													
1976	46,659.9	550.4	560.3	41.4	29.7	1.70	26.5	26.4	9.2	10,271	..	..	14.2
1981	46,820.8	598.2	541.0	36.4	29.9	1.79	27.0	26.8	12.9	9,298	71.1	77.0	10.9
1986	47,187.6	623.6	544.5	33.1	29.8	1.76	27.4	27.0	21.4	8,725	72.2	77.9	9.5
1991	47,875.0	660.8	534.0	32.9	30.0	1.81	27.7	27.7	30.1	8,017	73.4	78.9	7.3
1996	48,519.1	614.2	524.0	33.7	30.0	1.73	28.2	28.7	35.5	7,414	74.5	79.6	6.1
2001	49,449.7	563.7	496.1	32.5	29.7	1.63	28.6	29.3	39.6	6,650	75.9	80.6	5.4
2002	49,649.1	565.7	500.8	32.1	29.7	1.65	28.7	29.4	40.1	6,631	76.1	80.7	5.3
2003	49,863.3	589.9	504.1	31.8	29.8	1.73	28.9	29.4	40.9	6,617	76.5	80.9	5.3
2004	50,109.7	607.2	480.7	31.4	29.8	1.78	29.0	29.5	41.7	6,265	76.8	81.1	5.1
2005	50,466.2	613.0	479.7	30.9	29.9	1.79	29.1	29.5	42.3	6,131	77.2	81.5	5.0
2006	50,763.9	635.7	470.3	30.6	29.9	1.86	29.2	29.5	43.0	5,914	77.5	81.7	5.0
2007	51,106.2	655.4	470.7	30.4	30.3	1.91	29.3	29.6	43.8	5,791	77.7	81.9	4.8
2008	51,464.6	672.8	475.8	30.3	30.8	1.96	29.4	29.5	44.7	5,746	78.0	82.1	4.7
2009	51,809.7	671.1	459.2	30.2	31.2	1.96	29.4	29.5	45.6	5,478	..	..	4.6

Notes: Final 2010 birth and death figures for England and Wales will be published in July 2011. The publication of provisional annual figures in May has been discontinued.

Death figures for England and Wales represent the number of deaths registered in each year up to 1992, and the number of deaths occurring in each year from 1993 to 2001.

Death figures for 2002 onwards relate to registrations.

Birth and death figures for England and also for Wales each exclude events for persons usually resident outside England and Wales (apart from life expectancy figures - where those occurring in England and Wales are assigned to England). These events are, however, included in the total for the United Kingdom.

From 1981 births to non-resident mothers in Northern Ireland are excluded from the figures for Northern Ireland, and for the United Kingdom.

The birth rates, death rates and the standardised mean age of mother at birth for 2002-2008 have been calculated using revised mid-2002 to mid-2008 population estimates which were published on 13 May 2010. Consequently, some figures may differ from those published previously.

Infant mortality rates for Northern Ireland take account of the non-resident live births.

1 Percentage of children under 16 to working-age population (males 16–64 and females 16–59).

2 Percentage of males 65 and over and females 60 and over to working-age population (males 16–64 and females 16–59).

3 TFR (total fertility rate) is the number of children that would be born to a woman if current patterns of fertility persisted throughout her childbearing life. It is sometimes called the TPFR (total period fertility rate).

4 Standardised to take account of the age structure of the population.

5 Unstandardised and therefore takes no account of the age structure of the population.

6 Per million population.The age-standardised mortality rate makes allowances for changes in the age structure of the population and uses the European Standard population. See Notes to tables.

7 All countries: figures for all years based on registered deaths. A minor methodological change was introduced for the 2006 figures to ensure consistency with population estimates of the very elderly for England and Wales. The effect on calculated life expectancies is marginal.

8 Deaths at age under one year per 1,000 live births. All infant mortality data has now been revised to registration data.

Sources: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency.

Table 2.2 continued **Key demographic and health indicators**

Constituent countries of the United Kingdom

Numbers (thousands), rates, percentages, mean age

Year	Population	Live births	Deaths	Dependency ratio		Live births				Age-standardised mortality rate[6]	Period expectation of life (in years) at birth[7]		Infant mortality rate[8]
				Children[1]	Elderly[2]	TFR[3]	Standardised mean age of mother at birth (years)[4]	Unstandardised mean age of mother at birth (years)[5]	Outside marriage as percentage of total live births		Males	Females	
Wales													
1976	2,799.3	33.4	36.3	42.0	30.9	1.78	26.2	26.0	8.6	10,858	..	..	13.7
1981	2,813.5	35.8	35.0	37.6	31.6	1.87	26.7	26.6	11.2	9,846	70.4	76.4	12.6
1986	2,810.9	37.0	34.7	34.3	32.5	1.86	26.9	26.5	21.1	9,043	71.6	77.5	9.5
1991	2,873.0	38.1	34.1	34.4	33.5	1.88	27.1	27.0	32.3	8,149	73.1	78.8	6.6
1996	2,891.3	34.9	34.6	34.9	33.7	1.81	27.5	27.8	41.2	7,758	73.8	79.1	5.6
2001	2,910.2	30.6	33.0	33.7	33.6	1.66	27.8	28.3	48.3	7,017	75.3	80.0	5.5
2002	2,918.2	30.2	33.3	33.3	33.7	1.65	28.0	28.4	49.7	6,997	75.5	80.1	4.7
2003	2,928.8	31.4	33.8	32.8	33.8	1.73	28.1	28.5	50.3	7,033	75.8	80.3	4.1
2004	2,943.5	32.3	32.3	32.3	33.9	1.79	28.2	28.5	51.3	6,645	76.1	80.6	5.1
2005	2,950.1	32.6	32.2	31.8	34.1	1.81	28.4	28.5	52.4	6,481	76.6	80.9	4.3
2006	2,961.9	33.6	31.1	31.4	34.3	1.86	28.5	28.5	53.0	6,199	76.7	81.1	4.1
2007	2,976.1	34.4	32.1	31.0	34.9	1.91	28.6	28.6	53.8	6,308	76.9	81.2	5.3
2008	2,990.1	35.7	32.1	30.7	35.5	1.97	28.7	28.5	55.6	6,147	77.1	81.4	4.1
2009	2,999.3	34.9	31.0	30.6	36.1	1.93	28.7	28.5	56.6	5,888	..	..	4.8
Scotland													
1976	5,233.4	64.9	65.3	44.7	28.4	1.79	26.4	26.0	9.3	11,675	..	..	14.8
1981	5,180.2	69.1	63.8	38.2	28.4	1.84	26.8	26.3	12.2	10,849	69.1	75.3	11.3
1986	5,111.8	65.8	63.5	33.6	28.1	1.67	27.1	26.6	20.6	10,120	70.2	76.2	8.8
1991	5,083.3	67.0	61.0	32.4	28.9	1.69	27.5	27.4	29.1	9,216	71.4	77.1	7.1
1996	5,092.2	59.3	60.7	32.3	29.2	1.56	28.0	28.5	36.0	8,791	72.2	77.9	6.2
2001	5,064.2	52.5	57.4	30.8	30.0	1.49	28.5	29.2	43.3	7,930	73.3	78.8	5.5
2002	5,054.8	51.3	58.1	30.3	30.2	1.48	28.6	29.2	44.0	7,955	73.5	78.9	5.3
2003	5,057.4	52.4	58.5	29.9	30.3	1.54	28.7	29.3	45.5	7,478	73.8	79.1	5.1
2004	5,078.4	54.0	56.2	29.5	30.5	1.60	28.9	29.4	46.7	7,536	74.2	79.3	4.9
2005	5,094.8	54.4	55.7	29.1	30.6	1.62	29.0	29.5	47.1	7,349	74.6	79.6	5.2
2006	5,116.9	55.7	55.1	28.7	30.6	1.67	29.1	29.5	47.7	7,162	74.8	79.7	4.5
2007	5,144.2	57.8	56.0	28.4	31.0	1.73	29.2	29.4	49.1	7,150	75.0	79.9	4.7
2008	5,168.5	60.0	55.7	28.2	31.4	1.80	29.3	29.4	50.1	7,006	75.3	80.1	4.2
2009	5,194.0	59.0	53.9	28.1	31.8	1.77	29.3	29.4	50.3	6,667	..	..	4.0
2010[p]	5,211.4	58.8	54.0	..	..	1.75	29.6	29.6	50.2	6,578	..	..	3.7
Northern Ireland													
1976	1,523.5	26.4	17.0	56.1	25.3	2.68	27.8	27.4	5.0	11,746	..	..	18.3
1981	1,543.0	27.2	16.3	50.6	25.3	2.59	28.1	27.5	7.0	10,567	69.2	75.5	13.2
1986	1,573.5	28.0	16.1	46.1	25.5	2.45	28.1	27.5	12.8	10,071	70.9	77.1	13.2
1991	1,607.3	26.0	15.1	44.1	26.1	2.16	28.3	28.0	20.3	8,303	72.6	78.4	7.4
1996	1,661.8	24.4	15.2	41.8	25.5	1.95	28.7	28.8	26.0	7,742	73.8	79.2	5.8
2001	1,689.3	22.0	14.5	38.6	25.5	1.80	29.1	29.4	32.5	6,976	75.2	80.1	6.0
2002	1,696.6	21.4	14.6	37.9	25.7	1.77	29.1	29.4	33.5	6,929	75.6	80.4	4.6
2003	1,702.6	21.6	14.5	37.2	25.9	1.81	29.2	29.5	34.4	6,742	75.8	80.6	5.2
2004	1,710.3	22.3	14.4	36.4	26.2	1.87	29.4	29.7	34.5	6,607	76.0	80.8	5.3
2005	1,724.4	22.3	14.2	35.8	26.3	1.87	29.5	29.7	36.3	6,415	76.1	81.0	6.1
2006	1,741.6	23.3	14.5	35.3	26.4	1.94	29.6	29.7	38.0	6,419	76.2	81.2	5.1
2007	1,759.1	24.5	14.6	34.9	26.6	2.02	29.8	29.8	37.9	6,319	76.3	81.2	4.9
2008	1,775.0	25.6	14.9	34.7	26.9	2.11	29.8	29.7	38.9	6,299	76.7	81.3	4.7
2009	1,788.9	24.9	14.4	34.6	27.3	2.04	29.8	29.7	39.8	6,002	..	..	5.1
2010[p]	1,802.2	25.3	14.5	..	..	2.07	30.0	29.9	40.4	..	..	..	5.7

See notes on first page of table

Table 3.1 **Live births: age of mother**

England and Wales

Numbers (thousands), rates, mean age and TFRs

Year and quarter	Age of mother at birth							Mean age[1] (years)	Age of mother at birth							Mean age[2] (years)	TFR[3]
	All ages	Under 20	20–24	25–29	30–34	35–39	40 and over		All ages	Under 20	20–24	25–29	30–34	35–39	40 and over		
	Total live births (numbers)								Age-specific fertility rates[4]								
1961	811.3	59.8	249.8	248.5	152.3	77.5	23.3	27.6	89.2	37.3	172.6	176.9	103.1	48.1	15.0	27.4	2.77
1964(max)	876.0	76.7	276.1	270.7	153.5	75.4	23.6	27.2	92.9	42.5	181.6	187.3	107.7	49.8	13.7	27.3	2.93
1966	849.8	86.7	285.8	253.7	136.4	67.0	20.1	26.8	90.5	47.7	176.0	174.0	97.3	45.3	12.5	27.1	2.75
1971	783.2	82.6	285.7	247.2	109.6	45.2	12.7	26.2	83.5	50.6	152.9	153.2	77.1	32.8	8.7	26.6	2.37
1976	584.3	57.9	182.2	220.7	90.8	26.1	6.5	26.4	60.4	32.2	109.3	118.7	57.2	18.6	4.8	26.5	1.71
1977(min)	569.3	54.5	174.5	207.9	100.8	25.5	6.0	26.5	58.1	29.4	103.7	117.5	58.6	18.2	4.4	26.6	1.66
1981	634.5	56.6	194.5	215.8	126.6	34.2	6.9	26.8	61.3	28.1	105.3	129.1	68.6	21.7	4.9	27.0	1.79
1986	661.0	57.4	192.1	229.0	129.5	45.5	7.6	27.0	60.6	30.1	92.7	123.8	78.0	24.6	4.8	27.4	1.77
1991	699.2	52.4	173.4	248.7	161.3	53.6	9.8	27.7	63.6	33.0	89.3	119.4	86.7	32.1	5.3	27.7	1.82
1992	689.7	47.9	163.3	244.8	166.8	56.7	10.2	27.9	63.6	31.7	86.1	117.6	87.4	33.4	5.8	27.8	1.80
1993	673.5	45.1	152.0	236.0	171.1	58.8	10.5	28.1	62.7	30.9	82.5	114.4	87.4	34.1	6.2	27.9	1.76
1994	664.7	42.0	140.2	229.1	179.6	63.1	10.7	28.4	62.0	28.9	79.0	112.2	89.4	35.8	6.4	28.1	1.75
1995	648.1	41.9	130.7	217.4	181.2	65.5	11.3	28.5	60.5	28.5	76.4	108.4	88.3	36.3	6.8	28.2	1.72
1996	649.5	44.7	125.7	211.1	186.4	69.5	12.1	28.6	60.6	29.7	77.0	106.6	89.8	37.5	7.2	28.2	1.74
1997	643.1	46.4	118.6	202.8	187.5	74.9	12.9	28.8	60.0	30.2	76.0	104.3	89.8	39.4	7.6	28.3	1.73
1998	635.9	48.3	113.5	193.1	188.5	78.9	13.6	28.9	59.2	30.9	74.9	101.5	90.6	40.4	7.9	28.3	1.72
1999	621.9	48.4	110.7	181.9	185.3	81.3	14.3	29.0	57.8	30.9	73.0	98.3	89.6	40.6	8.1	28.4	1.70
2000	604.4	45.8	107.7	170.7	180.1	85.0	15.1	29.1	55.9	29.3	70.0	94.3	87.9	41.4	8.3	28.5	1.65
2001	594.6	44.2	108.8	159.9	178.9	86.5	16.3	29.2	54.7	28.0	69.0	91.7	88.0	41.5	8.8	28.6	1.63
2002	596.1	43.5	111.0	153.4	180.5	90.4	17.3	29.3	54.7	27.1	69.1	91.5	89.9	43.0	9.1	28.7	1.65
2003	621.5	44.2	116.6	156.9	187.2	97.4	19.1	29.4	56.8	26.9	71.3	96.0	95.0	46.4	9.8	28.8	1.73
2004	639.7	45.1	121.1	160.0	190.6	102.2	20.8	29.4	58.2	26.8	72.7	97.7	99.7	48.8	10.4	28.9	1.78
2005	645.8	44.8	122.1	164.3	188.2	104.1	22.2	29.5	58.3	26.3	71.5	97.9	100.8	50.3	10.8	29.1	1.79
2006	669.6	45.5	127.8	172.6	189.4	110.5	23.7	29.5	60.2	26.6	73.0	100.7	104.9	53.9	11.4	29.1	1.86
2007	690.0	44.8	130.8	182.6	191.1	115.4	25.4	29.5	62.0	26.0	73.3	103.8	110.2	56.9	12.0	29.3	1.91
2008	708.7	44.7	136.0	193.0	192.5	116.2	26.4	29.5	63.8	26.0	74.4	108.1	113.1	58.4	12.6	29.3	1.97
2009	706.2	43.2	136.0	194.1	191.6	114.3	27.0	29.5	63.7	25.3	73.9	107.2	113.1	59.0	12.9	29.4	1.96
2007 March	164.0	10.9	31.1	42.7	45.7	27.4	6.2	29.5	59.8	25.6	70.8	98.5	106.9	54.8	12.0	29.3	1.85
June	169.5	10.7	31.4	44.6	47.8	28.9	6.2	29.6	61.1	25.0	70.6	101.8	110.5	57.1	11.8	29.4	1.89
Sept	181.4	11.9	34.6	48.6	50.0	29.9	6.4	29.5	64.7	27.3	76.9	109.8	114.4	58.6	12.0	29.2	2.00
Dec	175.0	11.3	33.7	46.6	47.6	29.2	6.6	29.5	62.4	26.1	74.9	105.2	108.9	57.2	12.4	29.3	1.93
2008 March	173.8	11.1	33.5	46.7	47.2	28.8	6.4	29.5	62.9	26.0	73.9	105.2	111.5	58.2	12.4	29.3	1.94
June	177.0	11.0	33.5	48.3	48.4	29.2	6.6	29.5	64.0	25.8	73.7	108.9	114.3	59.1	12.6	29.4	1.97
Sept	182.4	11.4	35.2	50.3	49.3	29.5	6.7	29.4	65.3	26.5	76.6	112.1	115.2	59.0	12.8	29.3	2.01
Dec	175.5	11.1	33.8	47.7	47.6	28.7	6.7	29.5	62.8	25.8	73.6	106.2	111.4	57.4	12.6	29.3	1.94
2009 March	169.0	10.9	32.8	46.1	45.4	27.2	6.5	29.4	61.8	26.0	72.3	103.2	108.6	57.0	12.6	29.3	1.90
June	175.1	10.5	33.2	48.2	47.7	28.7	6.8	29.6	63.4	24.7	72.4	106.8	112.8	59.5	13.0	29.5	1.95
Sept	181.3	10.9	35.1	50.3	49.3	28.9	6.8	29.5	64.9	25.2	75.7	110.2	115.5	59.2	12.8	29.4	1.99
Dec	180.9	10.9	34.9	49.5	49.2	29.4	6.9	29.5	64.8	25.3	75.3	108.5	115.3	60.2	13.1	29.4	1.99
2010 March[P]	174.7	10.5	33.5	48.0	47.7	28.2	6.8	29.5	63.9	25.4	72.3	104.5	112.1	60.8	13.4	29.5	1.94
June[P]	176.1	9.8	33.2	48.4	49.5	28.5	6.6	29.6	63.7	23.4	71.1	104.2	115.1	60.6	12.9	29.6	1.94
Sept[P]	185.7	10.1	35.1	51.7	52.5	29.3	7.0	29.6	66.4	23.9	74.2	110.0	120.8	61.8	13.4	29.6	2.02

Notes: The rates for women of all ages, under 20, and 40 and over are based upon the populations of women aged 15–44, 15–19, and 40–44 respectively.
Rates for 2009 are based on mid-2009 population estimates.
Rates for 2010 are based on 2008-based population projections for 2010
Birth rates and the standardised mean age of mother for 2002-2008 have been calculated using revised mid-2002 to mid-2008 population estimates which were published on 13 May 2010. Consequently, some figures may differ slightly from those published previously. Figures may not sum due to rounding.

1 Unstandardised and therefore takes no account of the age structure of the population.
2 Standardised to take account of the age structure of the population.This measure is more appropriate for use when analysing trends or making comparisons between different geographies.
3 TFR (total fertility rate) is the number of children that would be born to a woman if current patterns of fertility persisted throughout her childbearing life. It is sometimes called the TPFR (total period fertility rate).
4 Births per 1,000 women in the age-group; all quarterly age-specific fertility rates are adjusted for days in the quarter. They are not adjusted for seasonality.
P provisional.

Source: Office for National Statistics

Table 4.1 **Conceptions by age of woman at conception, 1990–2010**

England and Wales — Residents

Year and quarter	Age of woman at conception								
	All ages	Under 16	Under 18	Under 20	20–24	25–29	30–34	35–39	40 and over
(a) numbers (thousands)									
1990	**871.5**	8.1	44.8	113.3	244.5	284.2	161.4	56.0	12.0
1991	**853.7**	7.5	40.1	101.6	233.3	281.5	167.5	57.6	12.1
1992	**828.0**	7.2	37.6	93.4	215.9	274.9	172.0	59.6	12.2
1993	**819.0**	7.3	35.8	87.2	203.6	271.7	181.0	63.0	12.6
1994	**801.6**	7.8	36.1	85.4	190.4	261.8	185.0	66.2	12.9
1995	**790.3**	8.1	37.9	86.6	181.1	250.3	190.3	68.7	13.2
1996	**816.9**	8.9	43.5	94.9	179.8	252.6	200.0	75.5	14.1
1997	**800.4**	8.3	43.4	96.0	167.3	242.6	200.9	78.9	14.7
1998	**797.0**	8.5	44.1	101.6	163.3	232.4	201.4	82.9	15.4
1999	**774.0**	7.9	42.0	98.8	157.6	218.5	197.1	86.0	16.0
2000	**767.0**	8.1	41.3	97.7	159.0	209.3	195.3	88.7	17.0
2001	**763.7**	7.9	41.0	96.0	161.6	199.3	196.7	92.2	17.8
2002	**787.0**	7.9	42.0	97.1	167.8	199.4	204.3	98.9	19.6
2003	**806.8**	8.0	42.2	98.6	175.3	199.8	209.0	103.1	20.9
2004	**826.8**	7.6	42.2	101.3	181.3	205.1	209.6	106.8	22.8
2005	**841.8**	7.9	42.3	102.3	185.5	211.3	209.2	110.0	23.6
2006	**870.0**	7.8	41.8	103.1	191.2	222.2	212.4	115.4	25.5
2007	**895.9**	8.2	43.0	106.3	198.7	234.8	211.5	118.0	26.5
2008	**888.6**	7.6	41.4	103.3	198.5	237.8	207.1	115.6	26.5
2009[1,P]	**896.3**	7.2	38.3	97.9	199.5	242.2	213.3	116.5	26.8
1996 March	**206.3**	2.3	10.9	24.2	47.3	64.0	49.2	18.3	3.4
June	**200.8**	2.3	10.9	23.7	44.6	61.9	48.7	18.2	3.6
Sept	**202.6**	2.1	10.5	22.6	43.1	63.2	50.8	19.2	3.6
Dec	**207.2**	2.1	11.2	24.2	44.9	63.5	51.2	19.8	3.6
1997 March	**194.1**	2.0	10.6	23.2	41.6	59.4	47.7	18.6	3.6
June	**198.5**	2.2	11.0	23.9	41.8	59.9	49.8	19.5	3.8
Sept	**199.2**	2.0	10.4	23.3	40.4	60.7	51.2	19.9	3.6
Dec	**208.6**	2.1	11.4	25.6	43.5	62.6	52.2	20.8	3.8
1998 March	**196.5**	2.1	11.2	25.3	41.1	57.7	48.9	19.9	3.6
June	**196.0**	2.1	11.0	25.3	40.5	56.8	49.0	20.5	3.8
Sept	**200.8**	2.1	10.7	24.7	40.0	59.1	51.9	21.1	3.9
Dec	**203.7**	2.1	11.2	26.3	41.7	58.9	51.5	21.3	4.0
1999 March	**191.5**	1.9	10.4	24.9	39.6	54.3	48.4	20.6	3.8
June	**190.4**	2.0	10.5	24.4	39.1	53.8	47.9	21.2	4.1
Sept	**194.0**	2.0	10.4	24.1	38.4	54.7	50.7	22.1	4.1
Dec	**198.0**	2.1	10.8	25.4	40.5	55.6	50.2	22.2	4.1
2000 March	**193.1**	2.0	10.5	25.1	40.4	53.2	48.3	21.9	4.2
June	**188.7**	2.1	10.4	24.3	39.3	51.5	47.5	21.8	4.3
Sept	**190.0**	2.1	10.0	23.5	38.4	52.0	49.7	22.2	4.2
Dec	**195.2**	2.0	10.4	24.7	40.9	52.7	49.8	22.7	4.3
2001 March	**189.2**	1.9	10.2	24.3	40.4	50.0	47.8	22.3	4.4
June	**187.4**	2.1	10.2	24.0	39.8	48.8	47.7	22.8	4.4
Sept	**189.3**	1.9	10.0	23.1	39.2	49.5	49.9	23.2	4.4
Dec	**197.9**	2.0	10.6	24.6	42.3	51.1	51.3	23.9	4.7
2002 March	**191.6**	1.9	10.3	24.1	41.3	48.8	49.0	23.7	4.6
June	**190.4**	2.0	10.5	24.2	40.7	48.2	48.8	23.8	4.8
Sept	**197.4**	2.0	10.2	23.4	41.4	50.2	52.4	25.2	4.9
Dec	**207.6**	2.0	11.0	25.4	44.4	52.3	54.2	26.2	5.2
2003 March	**198.2**	1.9	10.5	24.5	42.9	49.4	51.2	25.2	4.9
June	**198.5**	2.1	10.8	24.7	43.2	49.1	51.1	25.2	5.2
Sept	**200.1**	2.0	10.2	23.7	43.1	49.3	52.8	26.1	5.2
Dec	**210.0**	2.0	10.7	25.7	46.1	52.0	54.0	26.7	5.6

Notes: Conception figures are estimates derived from birth registrations and abortion notifications.
Rates for women of all ages, under 16, under 18, under 20 and 40 and over are based on the population of women aged 15–44, 13–15, 15–17, 15–19 and 40–44 respectively.
Revised mid–2002 to mid–2008 population estimates published on 13 May 2010 have been used in the calculation of conception rates for those years so figures may therefore differ from those published previously.
For a quarterly analysis of conceptions to women under 18 for local authority areas see the National Statistics website www.statistics.gov.uk/statbase/product.asp?vlnk=15055

1 Figures for 2009 conceptions by age exclude maternities relating to births in 2010 where the mother's age was not recorded.
2 Figures for conceptions by age for the March quarter of 2010 exclude maternities relating to births where the mother's age was not recorded.
3 Provisional quarterly rates for September 2009, December 2009 and March 2010 are calculated using mid–2009 population estimates and 2008 based population projections for mid–2010.

p provisional

Source: Office for National Statistics (ONS)

Table 4.1 continued **Conceptions by age of woman at conception, 1990–2010**

England and Wales

Residents

Year and quarter		Age of woman at conception								
		All ages	Under 16	Under 18	Under 20	20–24	25–29	30–34	35–39	40 and over
2004	March	**207.9**	2.0	10.9	26.2	45.9	51.1	52.6	26.6	5.6
	June	**200.1**	1.9	10.6	25.0	43.7	49.3	50.4	25.9	5.7
	Sept	**203.6**	1.8	10.0	24.0	44.1	50.7	52.7	26.6	5.6
	Dec	**215.2**	1.9	10.8	26.1	47.7	54.0	54.0	27.6	5.8
2005[r]	March	**204.6**	1.9	10.4	25.1	45.4	50.8	51.0	26.6	5.7
	June	**204.7**	2.0	10.5	25.1	45.2	51.0	50.7	26.9	5.8
	Sept	**210.9**	2.0	10.4	25.3	45.6	53.3	53.1	27.5	6.0
	Dec	**221.7**	2.0	11.0	26.8	49.3	56.2	54.3	29.1	6.0
2006	March	**214.0**	1.8	10.2	25.4	47.5	54.2	52.4	28.3	6.2
	June	**212.6**	2.1	10.6	25.7	46.9	53.8	51.4	28.3	6.5
	Sept	**215.1**	2.0	10.0	24.7	46.3	55.3	53.6	28.9	6.4
	Dec	**228.2**	2.0	11.0	27.3	50.6	58.9	55.1	29.9	6.5
2007	March	**221.6**	2.0	10.8	26.7	49.4	57.0	52.7	29.3	6.5
	June	**221.3**	2.1	10.9	26.9	49.3	57.5	52.0	29.0	6.5
	Sept	**222.7**	2.0	10.4	25.7	48.6	58.9	53.0	29.8	6.7
	Dec	**230.3**	2.0	10.9	27.0	51.3	61.4	53.9	29.9	6.8
2008	March	**224.3**	2.0	10.7	26.9	49.9	59.3	52.4	29.2	6.7
	June	**216.3**	2.0	10.6	26.0	48.8	57.2	49.6	28.1	6.5
	Sept	**221.4**	1.8	9.9	24.7	48.9	59.7	52.2	29.2	6.7
	Dec	**226.6**	1.8	10.2	25.6	51.0	61.6	52.8	29.1	6.5
2009	March[1,p]	**224.1**	1.9	9.8	25.2	50.2	60.2	52.6	29.3	6.7
	June[1,p]	**222.0**	2.0	10.0	25.3	49.7	59.4	51.8	29.0	6.8
	Sept[1,p]	**220.5**	1.7	9.2	23.3	48.5	59.7	53.6	28.9	6.5
	Dec[1,p]	**229.7**	1.7	9.3	24.2	51.1	63.0	55.2	29.4	6.8
2010	March[2,p]	**231.0**	1.8	9.2	24.5	51.6	62.5	55.7	29.9	6.9
	(b) rates (conceptions per thousand women in age-group)									
1990		**79.2**	9.5	47.7	68.0	124.0	138.0	89.7	33.6	6.6
1991		**77.7**	8.9	44.6	64.1	120.2	135.1	90.1	34.4	6.6
1992		**76.3**	8.4	43.5	61.9	113.9	132.0	90.1	35.2	6.9
1993		**76.2**	8.1	42.4	59.7	110.5	131.7	92.5	36.6	7.4
1994		**74.8**	8.3	41.9	58.7	107.3	128.3	92.1	37.6	7.6
1995		**73.8**	8.6	41.9	58.7	105.8	124.8	92.8	38.1	7.9
1996		**76.2**	9.5	46.3	63.2	110.1	127.6	96.3	40.7	8.4
1997		**74.6**	8.9	45.9	62.6	107.2	124.7	96.2	41.4	8.7
1998		**74.2**	9.0	47.1	65.1	107.7	122.2	96.8	42.4	8.9
1999		**71.9**	8.3	45.1	63.1	103.9	118.0	95.3	42.9	9.1
2000		**70.9**	8.3	43.9	62.5	103.2	115.7	95.3	43.2	9.4
2001		**70.3**	8.0	42.7	60.8	102.5	114.2	96.7	44.3	9.6
2002		**72.2**	7.9	42.9	60.6	104.4	119.0	101.7	47.0	10.3
2003		**73.7**	7.9	42.3	59.9	107.1	122.2	106.1	49.1	10.7
2004		**75.2**	7.5	41.8	60.3	108.8	125.3	109.7	51.0	11.4
2005		**76.0**	7.8	41.5	60.0	108.6	125.9	112.1	53.2	11.5
2006		**78.3**	7.8	40.9	60.2	109.3	129.6	117.7	56.3	12.3
2007		**80.5**	8.3	42.0	61.7	111.4	133.5	122.0	58.2	12.6
2008		**79.9**	7.8	40.7	60.1	108.7	133.2	121.7	58.1	12.6
2009[1,p]		**80.9**	7.5	38.3	57.3	108.5	133.8	125.9	60.1	12.8
1996	March	**77.4**	10.0	47.5	65.4	114.4	129.3	95.8	40.1	8.1
	June	**75.3**	9.8	46.9	63.7	109.1	125.6	94.6	39.7	8.6
	Sept	**75.2**	9.1	44.4	59.8	105.6	127.3	97.4	41.1	8.5
	Dec	**76.9**	9.0	47.3	63.7	111.2	128.4	97.9	42.0	8.5
1997	March	**73.4**	8.6	45.5	61.8	106.3	123.0	92.8	40.0	8.5
	June	**74.2**	9.4	46.8	62.6	106.7	123.2	95.7	41.3	8.9
	Sept	**73.7**	8.5	44.0	60.2	103.0	124.2	97.4	41.4	8.4
	Dec	**77.1**	8.9	47.9	65.7	111.8	128.7	99.4	43.0	8.9
1998	March	**74.3**	9.1	48.4	66.1	108.8	121.9	95.2	41.8	8.5
	June	**73.2**	9.0	47.2	65.1	106.7	119.3	94.5	42.3	8.9
	Sept	**74.2**	8.9	45.5	62.9	104.6	123.7	99.1	42.7	9.0
	Dec	**75.2**	8.9	47.4	66.8	109.0	124.1	98.5	42.8	9.2
1999	March	**72.2**	8.0	45.3	64.5	105.9	117.8	94.6	42.0	8.8
	June	**71.0**	8.6	45.0	62.5	103.3	116.3	92.8	42.5	9.3
	Sept	**71.4**	8.1	44.2	61.1	100.2	117.6	97.3	43.5	9.1
	Dec	**72.8**	8.5	45.7	64.3	105.4	120.1	96.5	43.6	9.2
2000	March	**71.9**	8.5	45.2	64.6	106.0	117.1	94.5	43.4	9.4
	June	**70.2**	8.5	44.5	62.5	102.9	114.0	93.1	42.9	9.6
	Sept	**69.8**	8.4	42.0	59.9	98.8	114.9	96.5	42.9	9.3
	Dec	**71.6**	8.0	43.6	62.6	104.8	117.4	97.0	43.8	9.4

See notes on first page of table

Table 4.1 continued **Conceptions by age of woman at conception, 1990–2010**

England and Wales — Residents

Year and quarter		Age of woman at conception								
		All ages	Under 16	Under 18	Under 20	20–24	25–29	30–34	35–39	40 and over
2001	March	**70.7**	7.8	43.3	62.7	104.8	114.5	95.0	43.7	9.7
	June	**69.2**	8.4	42.8	61.0	101.4	111.6	94.0	44.0	9.5
	Sept	**69.1**	7.7	41.1	57.9	98.4	113.1	97.6	44.2	9.3
	Dec	**72.1**	8.1	43.5	61.5	105.6	117.9	100.5	45.4	10.0
2002	March	**71.3**	7.7	43.0	61.5	105.0	116.3	98.5	45.8	9.9
	June	**70.1**	8.1	43.0	60.6	101.8	114.7	97.2	45.5	10.2
	Sept	**71.8**	7.7	41.3	57.7	102.0	119.2	103.7	47.6	10.2
	Dec	**75.5**	8.0	44.2	62.3	108.8	124.8	107.7	49.5	10.7
2003	March	**73.6**	7.8	42.9	61.0	107.2	121.4	104.7	48.6	10.3
	June	**72.8**	8.3	43.4	60.4	106.1	120.1	103.7	48.1	10.8
	Sept	**72.5**	7.9	40.6	56.9	104.2	119.6	106.7	49.3	10.5
	Dec	**76.0**	7.8	42.6	61.4	110.9	126.1	109.9	50.5	11.2
2004	March	**76.2**	7.8	43.4	63.1	111.4	125.5	109.4	51.1	11.4
	June	**73.2**	7.7	42.2	60.0	105.7	121.2	105.6	49.8	11.5
	Sept	**73.6**	7.1	39.2	56.7	104.9	122.7	110.0	50.6	11.1
	Dec	**77.7**	7.4	42.4	61.4	112.8	130.1	113.3	52.8	11.4
2005	March	**75.1**	7.6	41.5	60.0	108.7	123.9	109.9	51.9	11.4
	June	**74.2**	8.0	41.2	59.1	106.5	122.2	108.6	52.0	11.4
	Sept	**75.5**	7.8	40.6	59.0	105.6	125.7	113.4	52.8	11.6
	Dec	**79.3**	7.9	42.8	62.4	113.4	131.8	116.9	55.9	11.5
2006	March	**78.2**	7.1	40.5	60.3	111.0	129.2	116.3	55.7	12.2
	June	**76.7**	8.2	41.4	60.3	107.8	126.1	113.7	55.3	12.5
	Sept	**76.8**	7.7	38.8	57.2	104.6	127.5	118.3	56.0	12.1
	Dec	**81.4**	8.1	42.8	63.0	113.9	135.1	122.8	58.2	12.2
2007	March	**80.8**	8.1	43.0	63.0	113.2	132.7	121.3	58.4	12.6
	June	**79.7**	8.7	42.8	62.7	111.2	131.5	119.7	57.2	12.5
	Sept	**79.4**	8.2	40.1	59.1	107.9	132.7	121.5	58.5	12.6
	Dec	**82.1**	8.3	42.2	62.3	113.1	137.7	124.1	59.0	12.8
2008	March	**81.1**	8.1	42.3	62.9	110.8	134.3	123.1	58.6	12.7
	June	**78.2**	8.1	41.8	60.9	107.7	129.2	117.0	56.7	12.5
	Sept	**79.2**	7.6	38.8	57.4	106.3	132.7	122.1	58.6	12.7
	Dec	**81.2**	7.6	40.0	59.5	110.8	136.5	123.7	58.7	12.4
2009	March[1,P]	**81.9**	7.8	39.5	59.7	111.0	135.4	125.7	60.7	12.9
	June[1,P]	**80.3**	8.2	40.3	59.4	108.5	131.9	122.5	59.8	13.0
	Sept[1,3,P]	**78.9**	6.9	36.5	54.2	104.4	130.3	125.3	59.3	12.4
	Dec[1,3,P]	**82.2**	7.0	37.2	56.5	109.4	136.4	128.5	60.9	13.0
2010	March[2,3,P]	**84.5**	7.6	38.0	58.8	112.3	137.3	131.8	63.7	13.5
	(c) percentage terminated by abortion									
1990		**19.9**	50.8	41.1	35.7	22.3	13.5	13.8	23.1	43.2
1991		**19.4**	51.1	39.9	34.5	22.2	13.4	13.7	22.0	41.6
1992		**19.3**	48.6	39.1	33.9	22.3	13.9	13.9	22.2	41.5
1993		**19.2**	49.8	39.2	34.3	22.8	13.9	13.5	21.5	40.2
1994		**19.5**	50.3	39.8	34.7	23.4	14.3	13.6	21.1	40.9
1995		**19.7**	47.6	38.7	34.6	24.2	14.8	13.6	20.7	38.0
1996		**20.8**	49.2	40.0	36.2	25.7	15.6	14.1	21.2	37.6
1997		**21.3**	49.7	40.6	36.8	26.7	16.4	14.2	21.0	38.0
1998		**22.3**	52.4	42.0	37.8	27.8	17.1	14.9	21.5	37.9
1999		**22.6**	52.6	43.0	38.6	28.5	17.5	14.7	21.2	37.0
2000		**22.7**	54.0	44.2	39.3	29.2	17.7	14.5	20.5	35.4
2001		**23.2**	55.8	45.7	40.4	29.7	18.4	14.6	20.4	34.6
2002		**22.5**	55.6	45.3	39.9	28.8	17.9	13.9	19.5	34.6
2003		**22.5**	57.4	45.7	40.2	29.0	17.9	13.6	18.9	34.7
2004		**22.4**	57.2	45.6	40.1	28.9	18.2	13.2	18.3	33.0
2005		**22.2**	57.1	46.3	40.3	28.6	18.0	13.2	17.7	32.8
2006		**22.3**	59.8	48.4	41.9	28.7	18.0	13.1	17.1	31.8
2007		**22.0**	61.5	50.0	42.6	28.2	17.5	12.7	16.7	31.1
2008		**21.8**	61.5	49.4	42.4	28.0	17.4	12.8	16.3	30.0
2009[1,P]		**21.0**	59.8	48.8	41.9	27.1	16.5	12.4	15.8	29.1
1996	March	**21.0**	47.2	39.5	36.1	25.5	15.9	14.4	21.8	37.1
	June	**21.3**	49.2	40.7	36.6	26.5	16.0	14.4	21.8	38.2
	Sept	**19.7**	50.4	39.1	35.2	24.7	14.9	13.3	20.2	37.3
	Dec	**21.1**	50.2	40.8	37.0	26.3	15.8	14.2	21.0	37.9
1997	March	**21.4**	48.4	39.7	36.0	26.6	16.6	14.5	21.0	38.6
	June	**21.7**	49.5	40.3	36.7	27.1	16.8	14.6	21.9	39.1
	Sept	**20.5**	48.1	40.6	36.6	25.8	15.8	13.5	20.7	36.4
	Dec	**21.6**	52.5	41.6	37.6	27.2	16.5	14.3	20.6	37.8

See notes on first page of table

Table 4.1 continued **Conceptions by age of woman at conception, 1990–2010**

England and Wales — Residents

Year and quarter		Age of woman at conception								
		All ages	Under 16	Under 18	Under 20	20–24	25–29	30–34	35–39	40 and over
1998	March	**22.3**	51.4	41.2	37.3	27.7	17.3	15.2	21.7	37.0
	June	**22.8**	52.7	42.2	38.2	28.4	17.6	15.3	22.2	38.9
	Sept	**21.7**	52.5	42.2	37.9	27.3	16.6	14.4	21.3	37.6
	Dec	**22.2**	53.0	42.3	37.7	28.0	17.0	14.7	21.0	38.2
1999	March	**22.3**	51.4	42.0	38.0	27.9	17.2	14.7	21.6	36.2
	June	**23.0**	52.9	43.5	38.6	28.6	18.0	15.5	21.5	37.8
	Sept	**22.1**	52.7	43.1	38.7	28.5	17.2	14.1	20.6	37.3
	Dec	**22.8**	53.5	43.6	39.1	29.2	17.7	14.7	21.2	36.6
2000	March	**22.9**	53.8	44.3	39.6	29.6	17.7	14.5	20.4	35.3
	June	**23.2**	55.1	44.4	39.2	29.7	18.1	15.1	20.9	35.1
	Sept	**22.0**	53.2	43.8	38.7	28.2	17.4	14.0	19.8	35.4
	Dec	**22.8**	54.0	44.1	39.8	29.2	17.5	14.4	20.8	35.9
2001	March	**23.4**	54.4	44.9	40.2	29.8	18.6	14.8	20.7	34.9
	June	**23.8**	58.8	47.0	41.1	30.3	18.6	15.3	21.0	36.0
	Sept	**22.5**	55.0	45.7	40.1	29.2	18.1	13.8	19.9	33.5
	Dec	**22.9**	54.9	45.2	40.0	29.5	18.1	14.4	20.2	34.1
2002	March	**22.9**	54.3	44.9	40.2	29.4	18.1	14.1	19.8	35.1
	June	**22.9**	55.6	45.0	39.4	28.9	18.4	14.5	20.1	34.8
	Sept	**21.6**	56.1	45.0	39.4	27.8	17.3	13.2	18.7	34.2
	Dec	**22.6**	56.4	46.3	40.7	29.0	17.8	13.9	19.4	34.5
2003	March	**22.8**	58.9	46.1	40.2	29.5	17.9	13.8	19.7	34.5
	June	**23.1**	58.3	46.2	40.9	29.3	18.4	14.2	19.2	36.1
	Sept	**21.6**	56.9	45.3	39.5	28.0	17.1	13.0	18.0	33.8
	Dec	**22.5**	55.7	45.0	40.3	29.0	18.1	13.5	18.5	34.5
2004	March	**22.7**	58.2	45.7	40.2	29.4	18.5	13.4	18.2	32.9
	June	**23.0**	57.2	46.3	40.8	29.2	18.6	13.7	19.2	33.5
	Sept	**21.9**	56.8	45.8	40.0	28.4	17.9	12.8	17.8	33.0
	Dec	**22.0**	56.3	44.5	39.3	28.6	17.8	13.0	18.2	32.5
2005	March	**22.5**	57.5	47.3	41.1	29.2	18.1	13.1	18.0	32.6
	June	**22.7**	57.0	45.8	40.3	28.9	18.6	13.9	17.8	33.8
	Sept	**21.4**	56.2	45.3	39.0	27.5	17.5	12.6	17.2	32.1
	Dec	**22.2**	57.5	46.9	40.6	28.7	17.8	13.1	17.7	32.7
2006	March	**22.5**	59.0	47.7	41.6	29.1	18.4	13.0	17.5	31.1
	June	**23.1**	59.5	49.0	42.5	29.6	18.8	13.9	17.8	31.6
	Sept	**21.5**	60.4	48.0	41.3	27.7	17.5	12.7	16.3	32.8
	Dec	**22.0**	60.2	49.1	42.0	28.3	17.4	12.8	16.9	31.7
2007	March	**22.7**	62.6	50.7	43.2	29.5	18.3	13.0	16.9	31.1
	June	**22.5**	61.9	50.3	43.1	28.6	18.0	12.8	16.9	31.5
	Sept	**21.0**	57.9	48.5	41.3	26.9	16.5	12.3	16.0	30.8
	Dec	**21.8**	63.6	50.4	42.6	28.0	17.2	12.5	16.8	30.8
2008	March	**22.6**	62.2	50.6	43.8	28.9	17.9	13.1	16.8	31.2
	June	**22.4**	61.5	49.0	42.3	28.4	18.2	13.2	16.8	29.9
	Sept	**21.2**	61.7	48.9	41.6	27.3	16.9	12.6	15.6	29.6
	Dec	**21.2**	60.8	49.0	41.7	27.5	16.6	12.5	16.0	29.1
2009	March[1,P]	**21.4**	59.0	49.0	41.9	27.7	16.8	12.7	16.0	29.3
	June[1,P]	**21.5**	60.7	48.9	42.1	27.5	17.2	12.8	16.2	29.0
	Sept[1,P]	**20.3**	59.5	48.5	41.3	26.1	16.1	12.0	15.6	29.3
	Dec[1,P]	**20.7**	59.9	49.1	42.3	26.9	16.0	12.3	15.7	29.0
2010	March[2,P]	**21.0**	62.0	50.4	43.0	27.8	16.4	12.2	15.8	28.3

See notes on first page of table

Table 4.2 Abortions: residents and non-residents; age and gestation (residents only)

England and Wales

Numbers (thousands) and rates; and percentages for gestation weeks

Year and quarter		All ages			All women (residents)										
					Age group							Gestation weeks (percentages)			
		All[1] women	Residents[1]	Non-[1] residents	Under 16	16–19	20–24	25–29	30–34	35–44	45 and over	Under 9	9–12	13–19	20 and over
		Numbers (thousands)										Percentages			
1971		126.8	94.6	32.2	2.3	18.2	24.5	17.3	14.2	15.9	0.5	16.6	57.9	21.8	1.0
1976		129.7	101.9	27.8	3.4	24.0	23.6	19.3	14.6	14.7	0.5	24.8	55.8	15.0	1.1
1981		162.5	128.6	33.9	3.5	31.4	34.3	21.9	18.7	17.6	0.6	31.0	53.4	13.5	1.3
1986		172.3	147.6	24.7	3.9	33.8	45.3	28.7	18.0	17.5	0.4	33.4	53.8	11.5	1.4
1991		179.5	167.4	12.1	3.2	31.1	52.7	38.6	23.4	17.9	0.4	35.2	52.9	10.6	1.2
1996		177.5	167.9	9.6	3.6	28.8	46.4	39.3	28.2	21.1	0.4	40.0	48.7	10.1	1.3
2001		186.3	176.4	9.9	3.7	33.4	48.3	36.5	28.8	25.2	0.5	42.8	45.0	10.6	1.6
2002		185.4	175.9	9.5	3.7	33.0	48.4	35.8	28.5	26.0	0.5	42.2	45.2	11.0	1.6
2003		190.7	181.6	9.1	4.0	34.2	51.1	36.0	28.7	26.9	0.5	43.6	43.7	11.1	1.6
2004		194.5	185.7	8.8	3.8	35.5	52.8	37.8	28.1	27.3	0.5	46.2	41.5	10.8	1.6
2005		194.4	186.4	7.9	3.8	35.3	53.3	38.3	27.8	27.2	0.6	53.6	35.7	9.3	1.4
2006		201.2	193.7	7.4	4.0	37.3	55.3	40.4	28.2	27.9	0.7	54.9	34.3	9.2	1.5
2007		205.6	198.5	7.1	4.4	39.6	57.0	41.7	27.3	27.9	0.7	57.9	31.9	8.8	1.5
2008		202.2	195.3	6.9	4.1	38.6	56.2	41.9	27.0	26.9	0.7	61.6	28.7	8.2	1.5
2009		195.7	189.1	6.6	3.8	36.2	54.7	40.6	26.7	26.2	0.7	64.3	26.3	8.0	1.5
2010		196.1	189.6	6.5	3.7	34.6	55.5	40.8	28.0	26.4	0.7	66.8	24.3	7.4	1.4
2007	March	55.3	53.3	1.9	1.2	10.8	15.4	11.1	7.3	7.4	0.2	54.1	35.0	9.4	1.6
	June	51.2	49.4	1.8	1.1	9.9	14.3	10.3	6.7	6.8	0.2	56.6	32.6	9.2	1.5
	Sept	49.9	48.2	1.7	1.0	9.5	13.5	10.2	6.6	7.0	0.2	58.6	31.2	8.8	1.4
	Dec	49.2	47.6	1.6	1.1	9.4	13.7	10.0	6.6	6.7	0.2	62.7	28.3	7.6	1.4
2008	March	53.4	51.6	1.8	1.1	10.5	14.8	10.8	7.0	7.2	0.2	58.4	31.0	9.0	1.6
	June	52.5	50.8	1.8	1.1	10.1	14.6	10.9	6.9	7.0	0.2	60.8	29.5	8.3	1.4
	Sept	48.7	47.0	1.7	1.0	9.2	13.4	10.3	6.5	6.5	0.2	62.9	27.6	8.0	1.4
	Dec	47.5	45.9	1.6	1.0	8.8	13.3	9.9	6.5	6.2	0.2	64.8	26.2	7.6	1.4
2009	March	51.8	50.1	1.7	1.1	9.8	14.7	10.6	6.9	6.8	0.2	60.9	28.5	8.9	1.7
	June	50.0	48.3	1.7	0.9	9.2	14.1	10.4	6.8	6.6	0.2	64.1	26.8	7.8	1.3
	Sept	47.7	46.0	1.7	1.0	8.8	13.1	10.0	6.5	6.5	0.2	64.7	25.9	7.9	1.5
	Dec	46.2	44.7	1.5	0.8	8.4	12.9	9.6	6.5	6.3	0.2	67.8	23.7	7.1	1.4
2010	March	52.3	50.5	1.8	1.0	9.6	14.9	10.8	7.2	6.8	0.2	64.2	26.3	8.0	1.5
	June	49.6	47.9	1.7	1.0	8.8	14.0	10.2	7.0	6.6	0.2	65.9	25.2	7.5	1.4
	Sept	48.4	46.8	1.6	0.9	8.5	13.3	10.3	7.1	6.6	0.2	67.5	23.7	7.3	1.5
	Dec	45.7	44.4	1.4	0.8	7.6	13.2	9.6	6.7	6.3	0.2	70.0	21.8	6.8	1.4
		Rates (per thousand women residents)													
		ASR [2] (women 15-44)	Crude rate [3] (women 15-44)												
1971		9.9	10.1	:	2.3	13.9	13.1	10.7	10.0	5.6	0.3				
1976		10.2	10.5	:	2.9	16.9	14.2	10.4	9.2	5.3	0.3				
1981		11.9	12.4	:	3.0	19.4	18.6	13.1	10.1	5.9	0.4				
1986		13.0	13.5	:	3.7	22.0	21.9	15.5	10.8	5.1	0.3				
1991		15.0	15.2	:	3.8	24.0	27.1	18.5	12.6	5.1	0.3				
1996		16.0	15.7	:	3.9	24.2	28.4	19.9	13.6	6.0	0.2				
2001		17.0	16.2	:	3.7	26.6	30.6	20.9	14.2	6.4	0.3				
2002		17.0	16.1	:	3.7	25.8	30.1	21.4	14.2	6.5	0.3				
2003		17.5	16.6	:	3.9	26.1	31.2	22.1	14.6	6.6	0.3				
2004		17.8	16.9	:	3.7	26.5	31.9	23.3	14.7	6.7	0.3				
2005		17.8	17.0	:	3.7	26.3	32.0	23.6	14.5	6.6	0.3				
2006		18.3	17.5	:	3.9	27.3	32.5	24.3	15.1	6.8	0.4				
2007		18.6	17.9	:	4.4	28.9	32.6	24.3	15.1	6.7	0.4				
2008		18.2	17.6	:	4.2	27.8	31.6	23.9	15.6	6.5	0.4				
2009		17.5	17.0	:	4.0	26.1	30.0	22.8	15.7	6.4	0.4				
2010		17.5	17.1	:	3.9	25.0	30.2	22.5	16.5	6.5	0.3				
2007	March	20.0	19.2	:	4.7	31.4	35.3	25.6	16.7	7.2	0.4				
	June	18.5	17.8	:	4.4	28.8	32.7	23.7	15.5	6.6	0.4				
	Sept	18.0	17.4	:	4.2	27.7	30.8	23.3	15.4	6.8	0.4				
	Dec	17.8	17.2	:	4.4	27.2	31.1	22.7	15.3	6.5	0.4				
2008	March	19.1	18.5	:	4.7	30.4	32.6	24.1	16.3	7.0	0.4				
	June	18.7	18.2	:	4.4	29.3	32.1	24.1	16.0	6.9	0.3				
	Sept	17.3	16.9	:	4.0	26.6	29.3	22.6	15.3	6.3	0.4				
	Dec	16.9	16.4	:	4.1	25.4	29.0	21.5	15.2	6.1	0.3				
2009	March	18.5	18.1	:	4.4	28.5	31.9	23.5	16.3	6.7	0.4				
	June	17.8	17.4	:	4.0	26.7	30.4	22.9	16.0	6.6	0.3				
	Sept	16.9	16.6	:	4.1	25.6	28.1	21.9	15.3	6.4	0.4				
	Dec	16.4	16.1	:	3.5	24.4	27.6	21.0	15.2	6.3	0.4				
2010	March	18.6	18.2	:	4.2	28.1	31.9	23.4	16.8	6.9	0.4				
	June	17.6	17.3	:	4.3	25.9	30.0	21.9	16.3	6.7	0.3				
	Sept	17.1	16.9	:	3.7	24.9	28.4	21.9	16.3	6.7	0.3				
	Dec	16.2	16.0	:	3.5	22.5	28.0	20.3	15.4	6.4	0.3				

Notes: Rates for under 16 and 45 and over are based on female populations aged 13-15 and 45-49 respectively.

1 Includes cases with not stated age and/or gestation week.

2 Rates for all women residents age-standardised to the European population for ages 15-44.

3 Includes incomplete forms that have been returned to practitioners.

Table 5.1 **Period expectation of life at birth and selected ages, UK and constituent countries**

Constituent countries of the United Kingdom

Years

Year	Males								Year	Females							
	At birth	At age 5	20	30	50	60	70	80		At birth	At age 5	20	30	50	60	70	80
United Kingdom																	
1981	70.8	66.9	52.3	42.7	24.1	16.3	10.1	5.8	1981	76.8	72.7	57.9	48.2	29.2	20.8	13.3	7.5
1986	71.9	67.8	53.2	43.6	24.9	16.8	10.5	6.0	1986	77.7	73.4	58.6	48.8	29.8	21.2	13.8	7.8
1991	73.2	68.9	54.2	44.7	26.0	17.7	11.1	6.4	1991	78.7	74.3	59.5	49.7	30.6	21.9	14.3	8.2
1996	74.2	69.8	55.1	45.6	26.9	18.5	11.6	6.6	1996	79.4	74.9	60.1	50.3	31.2	22.3	14.5	8.3
2000	75.3	70.9	56.1	46.6	28.0	19.5	12.3	7.0	2000	80.1	75.6	60.8	51.0	31.9	23.0	15.0	8.6
2001	75.6	71.2	56.4	46.9	28.2	19.7	12.5	7.1	2001	80.4	75.8	61.0	51.2	32.1	23.2	15.1	8.7
2002	75.9	71.4	56.6	47.1	28.5	19.9	12.6	7.1	2002	80.5	75.9	61.1	51.3	32.2	23.3	15.2	8.7
2003	76.2	71.7	56.9	47.4	28.7	20.2	12.8	7.3	2003	80.7	76.1	61.3	51.5	32.4	23.4	15.3	8.7
2004	76.5	72.0	57.3	47.7	29.0	20.5	13.1	7.4	2004	80.9	76.4	61.5	51.7	32.6	23.6	15.5	8.8
2005	76.9	72.4	57.6	48.0	29.4	20.8	13.4	7.6	2005	81.3	76.7	61.9	52.0	32.9	23.9	15.8	9.0
2006	77.2	72.7	57.9	48.3	29.6	21.1	13.6	7.7	2006	81.5	76.9	62.0	52.2	33.1	24.1	15.9	9.1
2007	77.4	72.9	58.1	48.5	29.9	21.3	13.8	7.8	2007	81.6	77.1	62.2	52.4	33.2	24.3	16.1	9.2
2008	77.7	73.2	58.4	48.8	30.1	21.6	14.0	7.9	2008	81.9	77.3	62.4	52.6	33.4	24.5	16.2	9.3
England and Wales																	
1981	71.0	67.1	52.5	42.9	24.3	16.4	10.1	5.8	1981	77.0	72.9	58.1	48.3	29.4	20.9	13.4	7.5
1986	72.1	68.0	53.4	43.8	25.0	16.9	10.5	6.1	1986	77.9	73.6	58.8	49.0	30.0	21.4	13.9	7.9
1991	73.4	69.1	54.4	44.8	26.1	17.8	11.2	6.4	1991	78.9	74.5	59.7	49.9	30.8	22.0	14.4	8.3
1996	74.5	70.1	55.3	45.8	27.1	18.6	11.6	6.6	1996	79.6	75.1	60.2	50.4	31.3	22.5	14.6	8.4
2000	75.6	71.1	56.4	46.8	28.1	19.6	12.3	7.0	2000	80.3	75.8	60.9	51.1	32.0	23.1	15.1	8.6
2001	75.9	71.4	56.7	47.1	28.4	19.9	12.5	7.1	2001	80.5	76.0	61.2	51.3	32.2	23.3	15.2	8.7
2002	76.1	71.6	56.9	47.3	28.6	20.1	12.7	7.2	2002	80.7	76.1	61.3	51.5	32.3	23.4	15.3	8.7
2003	76.4	71.9	57.2	47.6	28.9	20.3	12.9	7.3	2003	80.9	76.3	61.5	51.7	32.5	23.6	15.4	8.8
2004	76.8	72.3	57.5	47.9	29.2	20.6	13.2	7.4	2004	81.1	76.6	61.7	51.9	32.7	23.8	15.6	8.9
2005	77.2	72.7	57.9	48.3	29.6	21.0	13.5	7.6	2005	81.5	76.9	62.0	52.2	33.1	24.1	15.9	9.1
2006	77.4	72.9	58.2	48.5	29.8	21.2	13.7	7.7	2006	81.7	77.1	62.2	52.4	33.2	24.3	16.0	9.2
2007	77.7	73.2	58.4	48.8	30.0	21.4	13.9	7.8	2007	81.8	77.3	62.4	52.6	33.4	24.4	16.2	9.2
2008	78.0	73.5	58.7	49.0	30.3	21.7	14.1	8.0	2008	82.1	77.5	62.6	52.8	33.6	24.6	16.4	9.4
England																	
1981	71.1	67.1	52.5	42.9	24.3	16.4	10.1	5.8	1981	77.0	72.9	58.2	48.4	29.4	20.9	13.4	7.5
1986	72.2	68.1	53.4	43.8	25.1	17.0	10.6	6.1	1986	77.9	73.6	58.8	49.0	30.0	21.4	13.9	7.9
1991	73.4	69.1	54.4	44.9	26.2	17.8	11.2	6.4	1991	78.9	74.5	59.7	49.9	30.8	22.0	14.4	8.3
1996	74.5	70.1	55.4	45.8	27.1	18.7	11.7	6.6	1996	79.6	75.1	60.3	50.4	31.3	22.5	14.6	8.4
2000	75.6	71.2	56.4	46.9	28.2	19.6	12.4	7.0	2000	80.3	75.8	61.0	51.2	32.0	23.1	15.1	8.6
2001	75.9	71.4	56.7	47.1	28.5	19.9	12.6	7.1	2001	80.6	76.0	61.2	51.4	32.2	23.3	15.2	8.7
2002	76.1	71.7	56.9	47.4	28.7	20.1	12.7	7.2	2002	80.7	76.1	61.3	51.5	32.4	23.4	15.3	8.7
2003	76.5	72.0	57.2	47.6	28.9	20.4	12.9	7.3	2003	80.9	76.4	61.5	51.7	32.6	23.6	15.4	8.8
2004	76.8	72.3	57.6	48.0	29.2	20.7	13.2	7.4	2004	81.1	76.6	61.7	51.9	32.8	23.8	15.6	8.9
2005	77.2	72.7	57.9	48.3	29.6	21.0	13.5	7.6	2005	81.5	76.9	62.1	52.3	33.1	24.1	15.9	9.1
2006	77.5	73.0	58.2	48.6	29.8	21.2	13.7	7.7	2006	81.7	77.1	62.3	52.4	33.3	24.3	16.0	9.2
2007	77.7	73.2	58.4	48.8	30.1	21.5	13.9	7.9	2007	81.9	77.3	62.4	52.6	33.4	24.4	16.2	9.2
2008	78.0	73.5	58.7	49.1	30.4	21.7	14.1	8.0	2008	82.1	77.5	62.7	52.8	33.7	24.7	16.4	9.4
Wales																	
1981	70.4	66.5	51.9	42.2	23.6	15.8	9.7	5.6	1981	76.4	72.3	57.5	47.7	28.9	20.5	13.1	7.4
1986	71.6	67.5	52.8	43.2	24.6	16.6	10.3	6.0	1986	77.5	73.3	58.5	48.7	29.7	21.1	13.7	7.8
1991	73.1	68.8	54.1	44.6	25.8	17.6	11.0	6.4	1991	78.8	74.3	59.5	49.7	30.6	21.8	14.3	8.3
1996	73.8	69.4	54.7	45.3	26.6	18.2	11.3	6.4	1996	79.1	74.6	59.7	49.9	30.9	22.1	14.4	8.3
2000	74.8	70.4	55.7	46.2	27.6	19.1	12.0	6.8	2000	79.7	75.2	60.4	50.6	31.5	22.6	14.7	8.4
2001	75.3	70.8	56.0	46.6	28.0	19.5	12.3	7.0	2001	80.0	75.4	60.6	50.8	31.7	22.8	14.9	8.5
2002	75.5	70.9	56.2	46.8	28.2	19.7	12.4	7.1	2002	80.1	75.5	60.7	50.9	31.8	22.9	15.0	8.6
2003	75.8	71.2	56.5	47.0	28.4	19.9	12.6	7.2	2003	80.3	75.7	60.9	51.1	32.0	23.1	15.1	8.6
2004	76.1	71.6	56.8	47.3	28.7	20.2	12.8	7.3	2004	80.6	76.0	61.1	51.3	32.2	23.3	15.2	8.7
2005	76.6	72.0	57.3	47.7	29.2	20.6	13.2	7.6	2005	80.9	76.3	61.5	51.6	32.6	23.7	15.5	8.9
2006	76.7	72.1	57.4	47.8	29.3	20.8	13.4	7.6	2006	81.1	76.5	61.6	51.8	32.7	23.8	15.7	9.0
2007	76.9	72.3	57.5	48.0	29.5	21.0	13.5	7.7	2007	81.2	76.6	61.8	51.9	32.9	23.9	15.9	9.1
2008	77.1	72.5	57.8	48.2	29.7	21.2	13.7	7.8	2008	81.4	76.8	62.0	52.1	33.0	24.1	16.0	9.2
Scotland																	
1981	69.1	65.2	50.6	41.1	22.9	15.4	9.6	5.5	1981	75.3	71.2	56.4	46.7	27.9	19.7	12.7	7.2
1986	70.2	66.0	51.4	41.9	23.5	15.8	9.9	5.7	1986	76.2	71.9	57.1	47.3	28.4	20.1	13.0	7.5
1991	71.4	67.1	52.5	43.0	24.6	16.6	10.4	6.1	1991	77.1	72.7	57.9	48.1	29.2	20.7	13.5	7.9
1996	72.2	67.8	53.1	43.7	25.3	17.3	10.9	6.3	1996	77.9	73.3	58.5	48.8	29.8	21.2	13.8	8.0
2000	73.1	68.6	53.9	44.6	26.3	18.2	11.5	6.6	2000	78.6	74.0	59.2	49.4	30.5	21.8	14.1	8.1
2001	73.3	68.8	54.2	44.8	26.6	18.4	11.7	6.8	2001	78.8	74.2	59.4	49.6	30.7	22.0	14.3	8.2
2002	73.5	69.0	54.3	45.0	26.7	18.6	11.8	6.8	2002	78.9	74.3	59.5	49.7	30.8	22.1	14.4	8.2
2003	73.8	69.3	54.6	45.2	27.0	18.8	12.0	6.9	2003	79.1	74.5	59.7	49.9	30.9	22.2	14.5	8.3
2004	74.2	69.7	55.0	45.6	27.3	19.1	12.2	7.0	2004	79.3	74.7	59.9	50.1	31.1	22.4	14.7	8.4
2005	74.6	70.1	55.4	45.9	27.7	19.4	12.5	7.2	2005	79.6	75.0	60.2	50.4	31.4	22.7	14.9	8.5
2006	74.8	70.3	55.5	46.1	27.9	19.6	12.6	7.2	2006	79.7	75.1	60.3	50.5	31.5	22.8	15.0	8.6
2007	75.0	70.4	55.7	46.3	28.1	19.9	12.8	7.3	2007	79.9	75.2	60.4	50.6	31.7	22.9	15.1	8.6
2008	75.3	70.7	56.0	46.6	28.4	20.1	13.0	7.4	2008	80.1	75.4	60.6	50.8	31.9	23.1	15.2	8.7
Northern Ireland																	
1981	69.2	65.4	50.9	41.5	23.2	15.6	9.7	5.8	1981	75.5	71.6	56.8	47.1	28.3	20.0	12.8	7.3
1986	70.9	66.8	52.2	42.7	24.2	16.4	10.4	6.2	1986	77.1	72.9	58.1	48.3	29.3	20.8	13.4	7.8
1991	72.6	68.2	53.6	44.1	25.5	17.3	11.0	6.4	1991	78.4	74.0	59.2	49.4	30.3	21.6	14.2	8.3
1996	73.8	69.4	54.7	45.3	26.6	18.2	11.4	6.6	1996	79.2	74.7	59.9	50.0	30.9	22.1	14.4	8.4
2000	74.8	70.4	55.7	46.2	27.6	19.1	11.9	6.6	2000	79.8	75.2	60.4	50.6	31.5	22.6	14.6	8.2
2001	75.2	70.7	56.1	46.6	27.9	19.4	12.3	6.9	2001	80.1	75.6	60.7	50.9	31.8	22.9	14.9	8.4
2002	75.6	71.1	56.4	46.9	28.2	19.7	12.4	7.0	2002	80.4	75.9	61.0	51.2	32.0	23.1	15.1	8.5
2003	75.8	71.4	56.7	47.1	28.4	19.9	12.6	7.2	2003	80.6	76.0	61.1	51.3	32.2	23.3	15.2	8.6
2004	76.0	71.6	56.9	47.4	28.7	20.2	12.8	7.3	2004	80.8	76.3	61.4	51.6	32.5	23.5	15.4	8.7
2005	76.1	71.6	57.0	47.5	28.9	20.4	13.0	7.3	2005	81.0	76.4	61.6	51.8	32.7	23.7	15.6	8.8
2006	76.2	71.7	57.1	47.6	29.1	20.6	13.1	7.3	2006	81.2	76.6	61.8	52.0	32.8	23.9	15.7	8.9
2007	76.3	71.8	57.2	47.7	29.2	20.7	13.2	7.3	2007	81.2	76.6	61.8	52.0	32.9	24.0	15.7	8.9
2008	76.7	72.2	57.5	48.0	29.5	21.0	13.5	7.4	2008	81.3	76.8	61.9	52.1	33.0	24.1	15.9	9.0

Note: All figures are based on a three-year period, so that for instance 2003 represents 2002-2004. The population estimates used to calculate these life expectancies are the latest available at time of publication of the 2007-2009 interim life tables (30 September 2010). All figures are based on death registrations. A minor methodological change was introducted for the 2006 figures to ensure consistency with population estimates of the very elderly for England and Wales. The effect on calculated life expectancies is marginal.

Table 6.1 **Deaths: age and sex**

England and Wales — Numbers (thousands) and rates

Year and quarter	All ages	Age group												
		Under 1[1]	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85 and over
Numbers (thousands)														
Males														
1976	300.1	4.88	0.88	0.68	0.64	1.66	1.66	3.24	5.93	20.4	52.0	98.7	80.3	29.0
1981	289.0	4.12	0.65	0.45	0.57	1.73	1.58	3.18	5.54	16.9	46.9	92.2	86.8	28.5
1986	287.9	3.72	0.57	0.33	0.38	1.43	1.75	3.10	5.77	14.4	43.6	84.4	96.2	32.2
1991	277.6	2.97	0.55	0.34	0.35	1.21	1.76	3.69	6.16	13.3	34.9	77.2	95.8	39.3
1996	268.7	2.27	0.44	0.24	0.29	0.93	1.41	4.06	5.84	13.6	30.1	71.0	90.7	47.8
2001	252.4	1.81	0.32	0.19	0.28	0.88	1.27	3.63	6.07	13.3	27.5	57.5	87.0	52.7
2002	254.4	1.83	0.33	0.20	0.29	0.91	1.31	3.67	6.26	13.0	27.8	56.6	88.5	53.7
2003	254.4	1.83	0.31	0.20	0.26	0.85	1.35	3.48	6.44	12.7	28.3	55.1	89.6	54.1
2004	245.2	1.81	0.30	0.17	0.25	0.83	1.26	3.28	6.36	12.4	27.1	52.7	87.4	51.3
2005	243.9	1.88	0.30	0.17	0.27	0.86	1.22	3.15	6.36	12.2	27.3	51.0	84.7	54.5
2006	240.9	1.86	0.29	0.19	0.26	0.84	1.21	3.13	6.32	12.3	27.6	48.9	81.9	56.2
2007	240.8	1.89	0.34	0.18	0.23	0.80	1.22	3.14	6.26	11.9	27.5	47.8	80.6	58.9
2008	243.0	1.92	0.28	0.18	0.19	0.78	1.26	3.09	6.42	12.3	27.1	47.9	79.8	61.9
2009	238.1	1.86	0.25	0.15	0.20	0.78	1.12	2.97	6.47	12.0	26.6	46.7	77.1	61.9
Females														
1976	298.5	3.46	0.59	0.45	0.42	0.62	0.67	1.94	4.04	12.8	29.6	67.1	104.7	72.1
1981	288.9	2.90	0.53	0.30	0.37	0.65	0.64	1.82	3.74	10.5	27.2	62.8	103.6	73.9
1986	293.3	2.59	0.49	0.25	0.27	0.56	0.67	1.65	3.83	8.8	25.8	58.4	106.5	83.6
1991	292.5	2.19	0.44	0.25	0.22	0.46	0.64	1.73	3.70	8.4	21.3	54.2	103.3	95.7
1996	291.5	1.69	0.32	0.18	0.20	0.43	0.51	1.85	3.66	8.9	18.2	50.2	96.7	108.7
2001	277.9	1.43	0.27	0.19	0.18	0.38	0.47	1.59	3.77	8.9	17.6	40.5	88.8	113.9
2002	281.0	1.34	0.24	0.16	0.20	0.39	0.47	1.60	3.77	8.7	17.8	39.6	90.2	116.4
2003	284.7	1.48	0.28	0.16	0.21	0.37	0.49	1.64	3.88	8.6	18.0	39.0	92.7	118.0
2004	269.0	1.46	0.25	0.14	0.17	0.41	0.49	1.54	3.86	8.1	17.6	37.0	88.4	109.5
2005	269.1	1.37	0.22	0.13	0.19	0.38	0.48	1.48	3.81	8.2	17.8	35.9	86.3	112.9
2006	261.7	1.51	0.27	0.14	0.17	0.38	0.44	1.38	3.80	8.1	17.9	34.5	81.2	111.9
2007	263.3	1.46	0.24	0.12	0.19	0.36	0.45	1.36	3.79	8.1	18.2	33.9	79.4	115.8
2008	266.1	1.45	0.27	0.14	0.14	0.35	0.46	1.45	3.81	8.3	18.2	33.9	77.8	119.8
2009	253.3	1.46	0.24	0.13	0.17	0.33	0.43	1.40	3.65	8.0	17.7	32.7	72.9	114.1
Rates (deaths per 1,000 population in each age group)														
Males														
1976	12.5	16.2	0.65	0.34	0.31	0.88	0.96	0.92	2.09	6.97	19.6	50.3	116.4	243.2
1981	12.0	12.6	0.53	0.27	0.29	0.82	0.83	0.89	1.83	6.11	17.7	45.6	105.2	226.5
1986	11.8	11.0	0.44	0.21	0.23	0.72	0.83	0.88	1.68	5.27	16.6	42.8	101.2	215.4
1991	11.2	8.3	0.40	0.21	0.23	0.72	0.89	0.94	1.76	4.56	13.9	38.1	93.1	205.6
1996	10.7	6.8	0.32	0.14	0.18	0.60	0.85	1.01	1.67	4.06	11.9	34.5	85.0	198.8
2001	9.9	5.9	0.25	0.11	0.16	0.53	0.80	0.97	1.56	3.89	10.0	28.0	74.0	186.4
2002	9.9	6.0	0.26	0.12	0.16	0.53	0.82	1.00	1.58	3.89	9.7	27.4	73.6	188.1
2003	9.8	5.7	0.25	0.12	0.15	0.49	0.82	0.97	1.61	3.82	9.6	26.4	72.9	191.1
2004	9.4	5.5	0.25	0.11	0.14	0.47	0.73	0.93	1.58	3.72	9.0	25.1	70.0	176.0
2005	9.3	5.7	0.24	0.10	0.16	0.48	0.69	0.89	1.56	3.61	8.9	24.1	67.4	172.1
2006	9.1	5.4	0.23	0.12	0.15	0.46	0.67	0.89	1.55	3.59	8.8	23.2	64.6	163.4
2007	9.1	5.3	0.26	0.12	0.13	0.43	0.65	0.89	1.54	3.42	8.7	22.5	62.8	161.0
2008	9.1	5.3	0.21	0.12	0.11	0.43	0.65	0.87	1.59	3.45	8.6	22.0	61.4	161.4
2009	8.8	5.1	0.18	0.10	0.12	0.43	0.58	0.83	1.63	3.29	8.4	21.0	58.5	155.0

Notes: Figures represent the numbers of deaths registered in each year up to 1992 and the numbers of deaths occurring in each year from 1993 to 2001. From 2002 onwards figures relate to the numbers of deaths registered in each year.
Death rates for 2009 have been updated using the 2009 population estimates published on 24 June 2010.
Death rates for 2002 to 2008 have been calculated using revised mid-2002 to mid-2008 population estimates which were published on 13 May 2010. Numbers of deaths by age group may not sum to all ages due to rounding.

1 Rates per 1,000 live births.
2 Death rates for 2010 are based on the 2008-based population projections for 2010.

P provisional

Source: Office for National Statistics.

Table 6.1 continued **Deaths: age and sex**

England and Wales

Numbers (thousands) and rates

Year and quarter		All ages	Age group												
			Under 1[1]	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85 and over
2007	March	10.0	5.3	0.28	0.12	0.14	0.47	0.65	0.92	1.55	3.68	9.2	24.4	69.9	184.3
	June	8.8	5.8	0.26	0.12	0.14	0.44	0.65	0.90	1.50	3.39	8.6	22.1	60.7	152.3
	Sept	8.2	5.1	0.22	0.09	0.13	0.40	0.61	0.88	1.49	3.18	8.1	20.7	57.1	140.5
	Dec	9.3	5.2	0.28	0.13	0.12	0.43	0.69	0.88	1.61	3.45	9.0	22.8	63.6	167.3
2008	March	9.7	5.4	0.21	0.12	0.11	0.37	0.59	0.84	1.57	3.66	9.0	23.4	65.7	177.7
	June	8.9	5.3	0.22	0.12	0.12	0.45	0.61	0.87	1.59	3.40	8.5	21.7	60.0	155.2
	Sept	8.2	5.1	0.18	0.13	0.10	0.44	0.70	0.88	1.57	3.27	8.1	20.4	55.0	139.0
	Dec	9.5	5.4	0.25	0.09	0.12	0.46	0.70	0.89	1.63	3.48	8.6	22.7	64.7	173.7
2009	March	9.9	5.4	0.18	0.06	0.13	0.43	0.57	0.82	1.61	3.43	9.0	22.9	67.1	182.7
	June	8.4	5.3	0.18	0.10	0.10	0.41	0.56	0.79	1.58	3.12	8.2	20.3	55.6	144.3
	Sept	8.0	5.0	0.16	0.08	0.10	0.39	0.55	0.81	1.57	3.16	7.9	19.4	52.8	134.8
	Dec	9.0	4.8	0.20	0.14	0.15	0.49	0.65	0.88	1.74	3.47	8.5	21.4	58.6	158.7
2010[2]	March[P]	9.6	4.9	0.21	0.12	0.10	0.31	0.54	0.77	1.58	3.37	8.7	22.0	62.1	173.0
	June[P]	8.5	4.8	0.19	0.08	0.10	0.36	0.54	0.73	1.48	3.11	8.2	20.1	54.6	143.7
	Sept[P]	8.1	4.6	0.19	0.09	0.09	0.34	0.60	0.76	1.49	3.12	7.8	19.2	51.4	133.2
Females															
1976		11.8	12.2	0.46	0.24	0.21	0.35	0.40	0.56	1.46	4.30	10.1	26.0	74.6	196.6
1981		11.3	9.4	0.46	0.19	0.19	0.32	0.35	0.52	1.26	3.80	9.5	24.1	66.2	178.2
1986		11.4	8.0	0.40	0.17	0.17	0.29	0.33	0.47	1.12	3.24	9.2	23.4	62.5	169.4
1991		11.2	6.4	0.33	0.16	0.15	0.29	0.33	0.44	1.05	2.87	8.2	21.8	58.7	161.6
1996		11.0	5.3	0.25	0.10	0.12	0.29	0.31	0.46	1.04	2.63	7.1	20.6	55.8	158.9
2001		10.4	4.9	0.22	0.12	0.11	0.24	0.30	0.42	0.96	2.57	6.3	17.4	50.1	155.0
2002		10.5	4.6	0.20	0.10	0.12	0.24	0.29	0.43	0.94	2.54	6.0	17.0	50.5	159.6
2003		10.6	4.9	0.24	0.10	0.12	0.22	0.30	0.45	0.96	2.52	5.9	16.7	51.3	165.7
2004		9.9	4.7	0.22	0.09	0.10	0.24	0.30	0.43	0.94	2.40	5.7	15.8	48.7	154.2
2005		9.9	4.3	0.19	0.09	0.12	0.22	0.28	0.42	0.92	2.39	5.6	15.3	48.1	152.2
2006		9.6	4.6	0.22	0.09	0.10	0.22	0.25	0.39	0.92	2.33	5.6	14.8	45.7	143.8
2007		9.6	4.3	0.19	0.08	0.12	0.21	0.25	0.39	0.92	2.27	5.6	14.5	44.9	143.6
2008		9.6	4.2	0.21	0.09	0.09	0.20	0.25	0.41	0.93	2.28	5.5	14.2	44.2	145.5
2009		9.1	4.2	0.18	0.09	0.11	0.19	0.23	0.40	0.91	2.15	5.4	13.4	41.4	136.2
2007	March	10.9	4.5	0.24	0.07	0.12	0.27	0.27	0.38	0.97	2.31	5.9	16.3	51.7	166.9
	June	9.2	4.6	0.21	0.10	0.13	0.18	0.22	0.44	0.86	2.31	5.5	14.1	42.8	135.6
	Sept	8.5	4.1	0.14	0.06	0.11	0.18	0.28	0.36	0.87	2.22	5.2	12.9	39.9	124.3
	Dec	9.8	4.2	0.16	0.10	0.12	0.20	0.25	0.38	0.96	2.25	5.7	14.7	45.4	147.9
2008	March	10.4	4.5	0.20	0.07	0.09	0.22	0.23	0.42	0.93	2.34	5.6	15.0	48.7	160.7
	June	9.3	3.6	0.20	0.11	0.10	0.16	0.28	0.41	0.92	2.29	5.5	13.8	42.8	139.7
	Sept	8.5	4.4	0.20	0.09	0.08	0.20	0.24	0.43	0.91	2.17	5.2	13.0	38.9	123.4
	Dec	10.3	4.3	0.25	0.09	0.08	0.23	0.26	0.40	0.97	2.32	5.8	15.0	46.4	158.4
2009	March	10.6	4.3	0.21	0.09	0.10	0.18	0.24	0.42	0.96	2.25	5.9	14.8	48.5	166.0
	June	8.5	4.4	0.17	0.09	0.07	0.19	0.20	0.39	0.85	2.08	5.1	12.9	39.1	124.7
	Sept	8.0	3.8	0.17	0.09	0.09	0.17	0.22	0.37	0.85	2.03	5.0	12.3	36.3	116.7
	Dec	9.3	4.4	0.20	0.09	0.16	0.23	0.27	0.41	0.97	2.24	5.5	13.7	41.9	138.2
2010[2]	March[P]	10.4	4.2	0.18	0.11	0.13	0.21	0.21	0.39	0.94	2.21	5.8	13.9	45.8	159.6
	June[P]	8.7	4.2	0.19	0.10	0.07	0.21	0.22	0.35	0.90	2.01	5.1	13.0	38.8	127.5
	Sept[P]	8.3	3.9	0.15	0.06	0.09	0.19	0.17	0.38	0.87	2.04	5.0	12.3	36.5	120.1

See notes on first page of table

Table 6.2 **Deaths: selected causes (International Classification) and sex**

England and Wales

Numbers (thousands) and rate for all deaths and age-standardised rates per million population for selected causes

Year and quarter	All deaths		Malignant neoplasms										
	Number (thousands)	Crude rate per 100,000 popualtion	All causes (age - standardised per million population[2])	Oesophagus	Stomach	Colon	Rectosigmoid junction, rectum, and anus	Trachea, bronchus and lung	Melanoma of skin	Other malignant neoplasms of skin	Breast	Cervix uteri	Ovary
			A00-R99 V01-Y89	(C15)	(C16)	(C18)	(C19-C21)	(C33-C34)	(C43)	(C44)	(C50)	(C53)	(C56)
Males													
1971	288.4	1,207	13,466	76	317	187	144	1,066	10	12	4	:	:
1981	289.0	1,196	12,189	90	251	181	135	1,028	17	9	3	:	:
1991	277.6	1,125	10,291	117	185	194	117	842	23	10	3	:	:
2001	252.4	987	8,188	129	111	155	89	570	26	7	3	:	:
2002	254.4	990	8,126	131	110	151	91	561	27	8	3	:	:
2003	254.4	985	8,025	134	102	146	90	538	28	8	2	:	:
2004	245.2	943	7,595	129	95	142	92	522	30	9	2	:	:
2005	243.9	931	7,380	132	93	138	92	513	28	8	2	:	:
2006	240.9	913	7,123	131	83	132	90	509	31	7	2	:	:
2007	240.8	906	6,948	128	82	128	88	498	31	8	3	:	:
2008	243.0	907	6,852	131	78	129	90	495	31	7	2	:	:
2009	238.1	882	6,573	130	76	125	86	480	32	7	2	:	:
2007 March	65.4	998	7,615	126	88	132	86	522	33	7	2	:	:
June	58.2	879	6,755	130	84	122	86	493	31	8	3	:	:
Sept	55.2	824	6,339	128	80	126	87	470	29	7	3	:	:
Dec	62.0	926	7,095	129	78	132	94	509	31	9	3	:	:
2008 March	64.6	969	7,295	136	80	132	88	509	29	5	1	:	:
June	59.1	887	6,715	126	77	130	90	478	33	8	2	:	:
Sept	55.4	823	6,257	126	79	129	92	484	30	8	2	:	:
Dec	63.9	950	7,145	135	78	126	91	510	33	6	1	:	:
2009 March	65.9	990	7,310	129	71	131	84	480	28	7	2	:	:
June	56.6	841	6,281	134	77	123	87	487	33	7	2	:	:
Sept	54.5	801	6,003	130	78	120	81	468	33	8	3	:	:
Dec	61.1	898	6,710	126	78	125	92	486	33	8	2	:	:
2010 March[P]	63.8	950	6,943	127	72	118	89	475	34	6	2	:	:
June[P]	57.1	842	6,197	126	75	120	92	454	33	8	2	:	:
Sept[P]	54.8	798	5,894	130	76	117	94	467	31	6	1	:	:
Females													
1971	278.9	1,104	8,189	40	149	176	79	183	14	6	379	83	126
1981	288.9	1,134	7,425	42	111	157	74	252	16	5	405	69	121
1991	292.5	1,122	6,410	50	74	146	61	300	18	4	401	54	118
2001	277.9	1,038	5,543	48	46	103	45	283	20	3	308	31	112
2002	281.0	1,046	5,539	51	44	103	44	285	19	3	302	29	112
2003	284.7	1,056	5,584	50	42	98	46	285	20	3	293	27	108
2004	269.0	994	5,277	48	42	96	47	284	19	3	285	27	102
2005	269.1	988	5,188	48	39	96	45	289	20	3	282	26	102
2006	261.7	956	4,988	48	35	93	46	300	19	4	277	24	99
2007	263.3	957	4,920	47	35	92	48	300	21	4	267	24	96
2008	266.1	961	4,897	47	35	90	48	307	22	3	263	23	93
2009	253.3	910	4,628	45	32	85	47	298	21	3	254	23	91
2007 March	74.0	1,091	5,522	50	35	92	49	314	22	4	284	25	95
June	62.8	916	4,756	48	31	88	45	296	22	4	267	22	97
Sept	58.8	847	4,407	40	37	91	47	285	21	3	251	22	96
Dec	67.7	976	5,006	51	37	96	49	305	20	4	268	25	94
2008 March	71.8	1,044	5,246	50	36	86	47	302	20	3	269	24	93
June	64.0	930	4,758	46	36	86	47	298	21	3	259	23	91
Sept	58.9	846	4,398	43	34	94	45	299	23	3	254	24	92
Dec	71.4	1,026	5,188	48	33	93	50	329	24	2	268	23	96
2009 March	73.0	1,064	5,287	45	32	88	49	301	19	3	267	23	91
June	59.1	852	4,373	45	32	82	46	294	19	2	252	23	90
Sept	56.2	801	4,138	45	31	82	45	288	20	3	241	23	90
Dec	65.0	926	4,728	45	33	86	46	310	25	4	255	22	95
2010 March[P]	70.7	1,022	5,077	43	35	87	47	320	20	4	252	23	95
June[P]	60.1	861	4,382	42	34	85	44	290	19	3	235	23	88
Sept[P]	57.6	815	4,171	44	30	81	44	292	21	3	248	23	86

Notes: Figures represent the number of deaths registered in each year up to 1992 and the number of deaths occurring in each year from 1993 to 2001. The number of deaths for 2002 onwards relate to registrations.

The rates by cause of death in this table are based on final underlying cause. For further details see the Statistical Bulletin: Registrations by cause in England and Wales, 2009 available at www.statistics.gov.uk/pdfdir/dth1010.pdf

Death rates for 2002 to 2008 have been updated using revised mid-2002 to mid- 2008 population estimates which were published on 13 May 2010.

Death rates for 2009 have been updated using the latest 2009 mid year population estimates published on 24 June 2010.

Death rates for 2010 are provisional and based on the 2008-based population projections for 2010.

Table 6.2 continued **Deaths: selected causes (International Classification)[1] and sex**

England and Wales — Numbers (thousands) and rate for all deaths and age-standardised rates per million population for selected causes

Malignant neoplasms													
Prostate	Bladder	Leukaemia	Diabetes mellitus	Ischaemic heart disease	Cerebro vascular diseases	Pneumonia	Bronchitis, emphysema and other chronic obstructive pulmonary disease	Asthma	Gastric and duodenal ulcer	Diseases of the liver	Land transport accidents	Intentional self-harm and events of undetermined intent with inquest verdict 'Open'	Year and quarter
(C61)	(C67)	(C91-C95)	(E10-E14)	(I20-I25)	(I60-I69)	(J12-J18)	(J40-J44)	(J45-J46)	(K25-K27)	(K70-K76)	(V01-V89)	(X60-X84, Y10-Y34)	
													Males
198	124	82	3,801	1,541	920	944	21	107	41	209	124	124	1971
214	121	82	3,664	1,141	1,053	683	28	90	58	119	151	151	1981
304	121	131	2,984	940	391	606	31	73	76	125	160	160	1991
274	93	94	1,872	690	388	403	16	55	139	86	134	134	2001
272	90	91	1792	692	389	398	16	56	145	93	134	134	2002
273	88	91	1703	663	407	410	14	53	156	91	134	134	2003
267	85	83	1570	596	361	366	15	50	152	85	133	133	2004
256	80	78	1467	553	353	368	12	46	155	85	128	128	2005
250	81	74	1353	520	320	343	10	45	161	83	123	123	2006
247	81	71	1280	481	303	337	11	39	162	79	119	119	2007
240	79	73	1211	467	301	346	10	40	164	70	125	125	2008
239	79	66	1130	432	283	320	10	37	157	61	127	127	2009
252	83	77	1441	541	395	433	11	44	178	84	115	115	March 2007
246	80	65	1249	465	286	311	11	36	154	77	121	121	June
233	78	65	1146	429	226	265	9	35	152	73	116	116	Sept
257	82	75	1287	489	306	338	11	40	167	82	125	125	Dec
239	75	75	1325	514	362	413	11	48	164	68	108	108	March 2008
228	78	73	1196	453	284	321	8	39	161	72	121	121	June
238	76	69	1071	409	225	260	8	34	162	70	137	137	Sept
253	86	75	1253	495	335	392	12	39	169	70	135	135	Dec
246	81	72	1317	516	408	428	11	41	155	64	119	119	March 2009
237	78	63	1071	400	248	286	9	37	149	58	125	125	June
234	76	59	1005	382	203	250	8	35	155	57	125	125	Sept
240	82	70	1131	430	278	316	11	35	169	63	138	138	Dec
244	74	69	1205	482	334	377	11	38	170	48	112	112	March[P] 2010
231	73	61	1074	411	235	294	6	33	151	50	118	118	June[P]
232	78	55	956	370	196	254	7	28	149	49	124	124	Sept[P]
													Females
:	32	89	1,668	1,352	624	193	25	44	31	82	84	84	1971
:	35	66	1,601	1,012	740	155	30	57	43	41	81	81	1981
:	34	95	1,407	812	325	211	30	46	49	45	51	51	1991
:	29	62	878	620	307	220	19	39	77	23	40	40	2001
:	30	65	845	618	318	225	20	37	79	25	42	42	2002
:	30	66	813	606	336	243	19	36	80	28	42	42	2003
:	28	60	737	551	297	214	18	35	83	25	44	44	2004
:	28	56	686	518	297	224	17	32	81	23	43	43	2005
:	29	54	629	478	261	213	16	29	87	24	39	39	2006
:	27	53	592	454	251	218	14	26	87	23	35	35	2007
:	27	51	561	442	255	226	15	27	86	21	38	38	2008
:	27	49	504	407	228	206	13	24	83	17	38	38	2009
:	29	58	689	517	353	298	18	28	96	23	33	33	March 2007
:	29	49	569	439	228	204	14	27	85	27	31	31	June
:	24	50	520	399	178	156	12	24	80	22	35	35	Sept
:	26	56	591	464	249	217	14	26	86	20	39	39	Dec
:	29	54	612	485	319	263	17	28	91	21	33	33	March 2008
:	27	51	547	431	236	206	14	26	85	22	39	39	June
:	25	46	498	380	170	159	11	27	78	24	40	40	Sept
:	27	53	590	472	295	275	17	27	92	18	40	40	Dec
:	27	58	576	483	347	288	18	28	86	17	36	36	March 2009
:	28	45	490	377	188	180	12	21	82	16	37	37	June
:	27	46	448	349	160	147	9	22	76	15	39	39	Sept
:	26	47	503	421	220	209	13	25	88	19	38	38	Dec
:	24	54	542	457	279	257	18	26	95	14	35	35	March[P] 2010
:	24	46	464	371	191	195	13	23	80	15	40	40	June[P]
:	26	44	426	352	149	157	10	19	79	18	38	38	Sept[P]

1 The Ninth Revision of the International Classification of Diseases, 1975, came into operation in England and Wales on 1 January 1979.TheTenth Revision of the International Classification of Diseases, 1992, came into operation in England and Wales on 1 January 2001. The cause descriptions and codes relate to ICD-10. For changes to this table see 'In Brief', Health Statistics Quarterly 14.

2 Directly age-standardised to the European Standard Population. See Notes to Tables.

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